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Conversational Flow

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Chapter eight

“More than Words”:

Social Validation in Close Relationships

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Abstract

An increasing part of communication between close partners is mediated by audiovisual channels (e.g., video conferencing, VOIP). Therefore, it is important to understand the social consequences of channel disturbances, such as a delay in “the line”. Research among previously unacquainted individuals has revealed that brief disruptions in conversational flow (e.g. silences or delays in mediated communication) threaten core social needs (Koudenburg, Postmes, & Gordijn, 2011a; 2013a, *Chapter 3, 4*). The present research examines the consequences of flow disruptions in close relationships. We hypothesized that when a relationship is perceived as stable and strong, partners may believe that ‘no words are needed’ and rely more on their sense of shared reality. We reasoned that when flow disruptions occurred, close relationship partners would rely on this shared reality and therefore paradoxically foster a sense of social validation. Data from a survey study (n = 252), a laboratory experiment (n = 74), and a field experiment (n = 130) were consistent with this hypothesis.

eight

*“More Than Words”:
Social Validation in Close Relationships*

Communication is often said to lie at the heart of every solid social relationship. The increasing availability of mediated communication such as telephone or video-conferencing makes a small chat with close friends or loved ones accessible at every point in time. However, with the introduction of mediated communication, conversations become more susceptible to disturbances, such as brief delays on the line. Previous research indicates that disruptions of conversational flow raise questions about the quality of relationships and the consensus between people (Koudenburg, Postmes, & Gordijn, 2011a; 2013a, *Chapter 3, 4*). But this prior research only studied conversations between people with no a priori acquaintance. In close relationships however, flow disruptions may be less disconcerting. Once solid bonds have been established, people may feel that no words are needed to understand each other. Indeed, research shows that romantic partners believe to be able to capture each other’s thoughts and expect to hold similar views (Sillars, 1985; Swann & Gill, 1997; Vorauer & Cameron, 2002). Thus, when people experience a sense of *shared reality* with close friends or loved ones, this may mean that smooth communication becomes less important. It could even suggest that disrupted conversations provide close partners with the possibility to increase their sense of social validation, as people fall back upon their sense of shared reality when their partners’ viewpoints are difficult to access. This is what we examined in the current research.

Disruptions of Conversational Flow

People possess a complex set of conversational skills that allows them to take turns with excellent precision (Clark, 1996; Schegloff, 2007; Wilson & Wilson; 2005). For instance, communicators take into

account the actions of their communication partners when planning and performing their own actions (Clark, 1996). In addition, they adjust their vocal intensity, pause length, and language use to their partner, in order to develop a common framework for communication (Giles & Coupland, 1991). Through such close coordination of speech acts, people are often able to minimize the duration of between-turn gaps to less than two tenths of a second (Jefferson, 1986). When turn-taking occurs in a smooth, efficient and effortless manner, a conversation is said to have flow (Cappella, 1981; Chapple, 1971; Koudenburg et al., 2013a; 2013c, *Chapter 4*, 7). Besides facilitating interaction, attaining conversational flow serves a communicative function in and of itself: Research has shown that when conversation between previously unacquainted people smoothly flows, this brings about a feeling of social unity. Disrupting this flow, for instance by a brief conversational silence, can negatively affect this sense of unity and threaten fundamental social needs, such as the need to belong (Koudenburg et al., 2011a; 2013a; 2013b; 2013c).

In addition to fostering a sense of belonging, research suggests that a smooth alternation of speaking turns between strangers increases the feeling of being on the same wavelength with one another, and therefore encourage feelings of social validation (Koudenburg et al; 2011a; 2013a, *Chapter 3*, 4). In other words, conversational flow can foster the emergence of a subjectively shared reality, which is central to the development of meaningful relationships (Berger & Kellner, 1964; Clark, 1996; Echterhoff, Higgins, & Levine, 2009; Kashima, Klein, & Clark, 2007).

It is however unclear how flow disruptions impact on social validation, once meaningful relationships have been established. We predict that for people in close relationships disruptions in conversational flow may serve to maintain high levels of shared reality.

Shared Reality in Relationships

With increasing time spent together, individuals gain more insight into each other (Funder & Colvin, 1988; Thomas & Fletcher, 2003). For

partners in close relationships, communication serves as a vehicle to acquire mutual understanding and to establish a sense of shared reality (Berger & Calabrese, 1975; Hardin & Conley, 2001; Heider, 1958). The achievement of common understanding serves two important social goals: First, it allows people to establish, maintain and regulate interpersonal relationships (see also Swaab, Postmes, Van Beest, & Spears, 2007). Second, it enables people to perceive the environment as stable, predictable, and to some extent controllable, thereby satisfying the need for validation (Echterhoff et al., 2009; Hardin & Higgins, 1996; Hardin & Conley, 2001).

Whereas the establishment of a shared reality in close relationships may partly result from a process of actual consensualisation of beliefs (Davis & Rusbult, 2001) and the development of shared memory schemes (Wegner, Giuliano, & Hertel, 1985); another part of the shared reality occurs in the eye of the beholder. Research shows that people in general, but romantic partners in particular, project their own views onto their partners, thereby overestimating the degree of similarity between oneself and one's partner (Heider, 1958; Murray, Holmes, Bellavia, Griffin, & Dolderman, 2002; Newcomb, 1968; Ross, Greene, & House, 1977; Sillars, 1985).

The social construction of reality provides intimates with a sense of security and social validation (Ickes & Simpson, 1997; 2001; Murray et al., 2002). In fact, research suggests that rather than actual understanding between intimates, it is especially the *perception* of being understood that serves positive outcomes for both personal and relational wellbeing (Acitelli, Douvan, & Veroff, 1993; Finkenauer & Righetti, 2011; Pollmann & Finkenauer, 2009; Reis, Clark, & Holmes, 2004; Reis & Shaver, 1988). As a consequence however, the overestimation of mutual agreement within a relationship may lead to a reduction in actual perspective taking. This process is reinforced by a reduced need for communication between partners, once they believe that they understand each other (Berger, 1979; Berger & Calabrese, 1975).

These studies suggest that a paradoxical effect may exist: A lack of communication may serve to maintain a high level of shared reality. Because disrupted communication can impede participants' ability to

Social validation in close relationships

assess actual agreement with their partners, participants are likely to fall back upon the shared reality they have established within their relationship. Their beliefs about their relationship (e.g. attitude similarity, mutual agreement) may inform them on how to interpret disruptions of flow, or silences, within the communication. In the context of mutual understanding, flow disruptions may be perceived as validating: They signal that partners understand one another. Thus rather than implying disagreement, for people in close relationships a lack of conversational flow may paradoxically enforce their sense of shared cognition and with that, encourage a feeling of social validation.

The Role of Relationship Stability and Strength

The present research examines whether in close relationships, a sense of shared cognition informs people about the consensus within the relationship and the validity of their ideas, when actual information on the personal standpoints of others is more difficult to access. In fact, we predict that the disrupted conversational flow provides individuals with more scope for interpreting the ideas of the other and therefore increases feelings of social validation. However, this could of course only work when the relation is experienced as stable and strong. Especially in secure relationships, people are likely to experience a sense of shared reality and overestimate the similarity of others' ideas to their own ideas (cf., Berger, 1979; Murray et al., 2002). However, when the level of security in a relationship is low, for instance because the relationship is perceived to be unstable and weak, a brief disruption of conversational flow may be experienced as threatening. In this case, people are likely to search for cues that inform them about the status of their relationship (Berger & Calabrese, 1975; Kerr & Levine 2008; Pickett, Gardner, & Knowles, 2004). A brief delay or silence may serve as such a cue, as it disrupts the smoothly flowing conversation that is likely to represent a state of harmony and consensus (Koudenburg et al., 2011a; 2013b; 2013c, *Chapter 3, 6, 7*).

The Present Research

The present research tests the effects of disruptions of conversational flow on feelings of shared cognition and social validation within close relationships. We examine whether perceptions of relationship stability and strength moderate the effect of conversational flow on shared cognition. More specifically, we predict that individuals who perceive their relationship as weak or unstable perceive disruptions of conversational flow as strangers would: As a signal of decreased shared cognition, which could invalidate their viewpoints. However, individuals who perceive their relationship as stable and strong are not expected to perceive disruptions of conversational flow so negatively. Instead, when conversational flow is lacking, they use their positive feelings about their relationship to fill in the communicational gaps, resulting in an *increased* sense of shared cognition and social validation. When conversation has flow, we expect no influence of relationship strength and stability perceptions.

The hypotheses are tested in different samples, with different disruptions of conversational flow. Study 1 was conducted using an online sample of people involved in a romantic relationship (N = 273). We assessed whether perceived relationship stability predicted whether brief conversational silences would be interpreted as confirmation. Perceived relationship stability was operationalized as the perceived satisfaction of the romantic partner. In addition, we assessed whether a sense of shared identity mediated the effect of relationship stability on the interpretation of silences.

In Study 2, romantic couples participated in a laboratory experiment, in which they were asked to have a conversation via headsets. We manipulated the extent to which the conversation had flow by delaying auditory feedback throughout the second half of the conversation, i.e. participants either heard each other with 1s delay (disrupted flow condition), or they conversed in real time (flow condition). Perceived satisfaction of the romantic partner before the conversation was again used as an indicator for relationship stability. Feelings of social validation and shared cognition were assessed after the conversation.

Social validation in close relationships

Study 3 was aimed at testing the generalizability of the findings. To this end, we conducted a field experiment, which used a method similar to Study 2 now including not only romantic couples, but dyads in any kind of close relationships (i.e. parent-child relationships, friend-ships). In addition, in Study 3 participants communicated via both visual and audio channels. Because Study 3 included dyads in relationships other than romantic, we used a more general measure of relationship strength to test whether this would moderate the effect of flow disruptions. Relationship strength was measured before the conversation; shared identity and social validation were measured afterwards.

Study 1

Methods

Sample. Participants were recruited via diverse online forums ($n = 263$) and a participant pool for undergraduate students in the Netherlands ($n = 10$). We specifically asked people who were currently engaged in a romantic relationship to participate in an online study. The total sample consisted of 273 participants who completed the questionnaire, with a mean age of 24.91 ($SD = 6.86$), and 80% female participants. Participants came from different backgrounds, with 43% Caucasian American, 11% Dutch, 7% German, 7% African American, and 32% from other backgrounds. The sample included 240 participants in heterosexual relationships, 6 participants in homosexual relationships and 5 participants who did not indicate their own or their partners' gender. On average, participants had been in a relationship for 4.94 years²² ($SD = 3.25$), and 51 participants indicated to be married, 67 participants were cohabiting, but not married, and 131 participants were neither married nor cohabiting. Seventeen participants indicated not being currently in a relationship, their cases were removed before further analysis. In addition, we excluded participants who reported not

²² Through a programming error, participants could not select options >13 years of relationship duration. 14 participants indicated that they had been in a relationship for 13 years, but it is likely that this was in fact longer. The average reported here may therefore be a slight underestimation.

filling out the questionnaire in a serious manner ($n = 2$), or had no variation in their scores ($n = 2$). The analyses were based on the remaining 252 participants.

Measures. Participants completed the following measures online: Perceived relationship stability, shared identity, and shared cognition.²³ First, we assessed participants' perceptions of their partner's satisfaction with the relationship, as an indicator of perceived relationship stability (4 items, e.g. "My current partner feels strongly connected to me", "It is likely that my partner will terminate our relationship within the next 6 months"- reverse coded, $\alpha = .85$). Then, participants completed the shared identity scale, which assesses the level of shared identity by means of two statements (i.e. "my partner and I belong to the same group") and three visual representations of socially shared identities ($\alpha = .79$; Tanis & Postmes, 2008). Shared cognition was measured by assessing participants' agreement with three items: "My partner and I were on the same wavelength", "My partner and I understood each other", "My partner and I had the feeling we agreed" ($\alpha = .91$, Koudenburg et al., 2013a, *Chapter 4*).

Finally, we constructed a measure to assess the participants' interpretations of disruptions of conversational flow. We developed 20 items, which related different disruptions of conversational flow (e.g., brief silences, starting to speak at the same time) to an interpretation or consequence (e.g., misunderstanding, disagreement, validation). An example item is: "When my partner briefly remains silent after I said something, I have the feeling that he/she disagrees". Items on all variables were measured on 7-point likert scales ranging from 1 = *strongly disagree*, to 7 = *strongly agree*. We deliberately formulated a broad range of items: This would allow us to identify the factor structure of disrupted flow experience, should it not be uni-dimensional.

Factor Analysis. We used exploratory factor analysis (EFA) to construct a scale for the disrupted flow experience. In the factor analysis, we included the 20 constructed items, as well as the three items for shared cognition and the four items for perceived relationship

²³ We also measured participants' own relationship satisfaction and their feelings of entitativity. Because these variables are not of main interest to the current research question, we do not report them here. Further information is available upon request.

stability. These latter two scales were included to establish the discriminant validity of the scale. We used the *psych* package in the program *R* to perform Principal Axis Factoring with *promax* rotation as recommended by Russell (2002). Oblique rotation was used, since we assumed that the factors could be correlated with each other. Initial EFA's indicated that 11 of the 20 disrupted flow experience questions loaded $< .4$ on each of the factors and thus had low explanatory value in the factor analysis. Therefore, we chose to exclude these items from all EFA's, thereby enhancing interpretation of the factor solutions. Additionally, one item had cross-loading structure coefficients on various factors, with 23% overlapping variance and a relatively low factor loading (.43), and was therefore also excluded from the EFA.

Thus, the final EFA was performed on 15 items, for a sample of 236 participants²⁴ (See Table 8.1). We based the number of factors that should be extracted on different criteria: The Scree plot (Cattell, 1966), Eigenvalues $>$ mean (Velicer, 1976), Parallel analysis (Horn, 1965), and optimal coordinates (Raiche, Roipel, and Blais, 2006). Each of these criteria suggested that 4 factors should be extracted. Eigenvalues ranged from 2.47 to 1.64, and the cumulative percentage of explained variance is 59.2%. Correlations between the four factors ranged from .11 to .61. Two factors extracted the items for perceived relationship stability (Factor 1) and shared cognition (Factor 3). Five items loaded highly on Factor 2, and these were items in which disruptions of flow were perceived *negatively* (i.e. "When my partner and I are quiet for a moment, we often have a different view on the subject."). Three items in which disruptions of flow were experienced *positively* loaded highly on Factor 4 (i.e. "When my partner briefly remains silent after I said something, I feel reaffirmed."). We constructed two scales for the interpretations of flow disruptions based upon these factors, by averaging the scores on the items that loaded on each of the factors. A 5-item *Disrupted Flow Experience-Negative* (DFE-Negative, $\alpha = .81$) and a 3-item *Disrupted Flow Experience-Positive* scale (DFE-Positive, $\alpha = .77$).

²⁴ Because exploratory factor analysis in *R* does not allow missing data, the analysis reported here excluded cases with missing values ($n = 16$). In the remaining analyses, these cases are included again.

Table 8.1. EFA pattern coefficients (Promax; Study 1).

	F1	F2	F3	F4	<i>h</i> ²
<i>Factor 1 [Relationship Stability]</i>					
My current partner feels strongly connected with me.	.85				.79
My current partner thinks that our relationship is worthwhile.	.92				.78
In general my partner is satisfied with our relationship.	.77				.75
It is very likely that my partner will break up with me within the next 6 months.	-.56				.29
<i>Factor 2 [Disrupted Flow-Negative]</i>					
When my partner is quiet after I said something, this is a sign of misunderstanding.		.61			.37
When my partner and I are quiet for a moment, we often have a different view on the subject.		.86			.66
When my partner and I take turns quickly, that often is because we disagree.		.58			.45
When my partner briefly remains silent after I said something, I have the feeling that he/she disagrees.		.76			.57
When my partner and I start talking at the same time it is often because we are not of the same opinion.		.53			.38

Table 8.1 continued.

	F1	F2	F3	F4	h^2
<i>Factor 3 [Shared Cognition]</i>					
My partner and I are on the same wavelength.			.79		.73
My partner and I understand each other.			.81		.74
My partner and I have the feeling that we agree with each other.			.96		.84
<i>Factor 4 [Disrupted Flow-Positive]</i>					
When my partner is quiet after I said something, I feel that my opinions are confirmed.				.70	.48
I experience my partner's silence as agreement.				.75	.55
When my partner briefly remains silent after I said something, I feel reaffirmed.				.70	.55
Eigenvalue	2.47	2.44	2.32	1.64	
Percentage of variance	.17	.16	.16	.11	
Percentage of variance (Cum.)	.17	.33	.48	.59	
<i>Factor correlations:</i>					
Factor 1	---	-.24	.61	.16	
Factor 2	---	---	-.37	.20	
Factor 3	---	---	---	.13	

Note. Coefficients smaller than .20 are not displayed. h^2 = communality coefficient.

Hypothesis testing. We tested the hypothesis that perceived relationship stability would predict the disrupted flow experience with two regression analyses, regressing DFE-Positive and DFE-negative separately onto perceived relationship stability (PRS). The first regression showed that perceived relationship stability significantly predicted DFE-Negative, $b = -.23$, $se = .09$, $t(241) = -2.45$, $p = .01$. The second regression revealed no effect of perceived relationship stability on DFE-Positive, $t < 1$, *ns*.

We used the guidelines by Hayes (2013) to test whether the effect of perceived relationship stability on DFE-negative was mediated by a sense of shared identity. The model showed that perceived relationship stability predicted a sense of shared identity, $b = .55$, $se = .06$, $t(250) = 9.49$, $p < .001$. Shared identity only marginally predicted DFE-Negative, $b = -.16$, $se = .08$, $t(250) = -1.91$, $p = .057$. The indirect effect of perceived relationship stability on DFE-Negative only reached marginal significance, $b = -.09$, $se = .05$, 95% bootstrapped CI [-.20; .02], Sobel $Z = -1.86$, $p = .06$, $Kappa^2 = .06$, $SE = .04$.

A similar analysis was performed to examine whether there was an indirect effect of perceived relationship stability through shared identity on DFE-Positive. Perceived relationship stability predicted a sense of shared identity, $b = .55$, $se = .06$, $t(250) = 9.49$, $p < .001$. Shared identity predicted DFE-Positive, $b = .19$, $se = .08$, $t(250) = 2.44$, $p = .016$. Although there was no evidence for a direct effect of perceived relationship stability on DFE-Positive, the indirect effect was significant, $b = .11$, $se = .05$, 95% bootstrapped CI [.01; .16], Sobel $Z = 2.35$, $p = .019$, $Kappa^2 = .08$, $SE = .04$.²⁵

Discussion

Study 1 identified two factors in the perception of conversational flow disruptions: A negative factor, in which flow disruptions are

²⁵ We also tested for reverse mediation, by switching the mediator and the dependent variable. However, both indirect effects of perceived relationship stability on shared identity via DFE-Positive ($b = .008$, $SE = .01$, *ns*) and via DFE-Negative ($b = .03$, $SE = .02$, *ns*) were much smaller than the hypothesized indirect effects and did not reach statistical significance.

experienced as a sign of disagreement or misunderstanding; and a positive factor, in which flow disruptions are perceived as a validation of what has been said. The factor analysis suggested that these factors can be distinguished from a general sense of shared cognition and from perceived relationship stability as provided by the perceived relationship satisfaction of the partner, strengthening the discriminant validity of the scale.

In line with the hypotheses, disruptions of flow were perceived more negatively to the extent that the relationship was perceived to be instable. Although perceived relationship stability did not directly predict the positive perceptions of flow disruptions, an indirect relation through shared identity was found. That is, the data suggested that perceived relationship stability predicted an increased sense of shared identity between partners, which was associated with an increased likelihood that flow disruptions were perceived as positive. This means that a shared identity can potentially act as a resource which partners can rely on for information about the consensus among them when conversational flow is disrupted.

Study 1 identifies a relation between perceived relationship stability and the interpretation of disruptions of conversational flow. However, due to the correlational nature of the design, no causal relations can be tested. In addition, it is possible that participants' recollected interpretations of flow-disruptions as obtained by the self-report measures differ from their actual experiences of when flow is disrupted in a conversation with their partner. Study 2 aimed to overcome these shortcomings by *manipulating* flow disruptions in a conversation between romantic partners.

Study 2

Methods

Participants. Participants were 74 romantic partners (37 couples, 36 mixed-sex, 1 same-sex) with an age range of 19-35 ($M = 22.31$, $SD = 3.08$). The mean relationship duration was 34.40 months ($SD = 23.51$

months). 7 couples were married, 7 couples were cohabiting, and 23 couples were neither cohabiting nor married.

Procedure. Romantic partners were placed into separate cubicles where they filled out the informed consent form and the first questionnaire. To manipulate conversational flow, we randomly assigned dyads to either a flow or a disrupted-flow condition. In the flow condition, dyads had a 5-min conversation about arranged marriages via headsets. This topic was chosen to be relevant to relationships. The disrupted-flow condition was similar, except that auditory feedback was delayed by 1s throughout the second half of the conversation. Previous research indicated that a 1s delay was long enough to hamper the coordination of communicative behaviors and reduce the flow of the conversation without making participants consciously aware of the delay (Koudenburg et al., 2013a, , *Chapter 4*; Pearson et al., 2008). After the conversation, we measured participants' level of social validation and shared cognition in a questionnaire.

Measures. Before starting the conversation, we measured participants' perceived relationship stability ($\alpha = .68$) as in Study 1. To test whether effects on social validation could be explained by individual differences, participants completed the Dutch 24-item attachment style questionnaire, which includes a subscale for each of the four attachment styles (i.e. secure, fearful, preoccupied, & dismissive; Van Oudenhoven, Hofstra & Bakker, 2003).

After the conversation participants indicated their feelings of social validation, by rating their agreement with three items: "I had the feeling that my ideas are grounded", "I felt validated in my opinions", "I had the feeling that my partner shared my opinions" ($\alpha = .80$; Koudenburg et al., 2011a, *Chapter 3*). Shared cognition was measured as in Study 1 ($\alpha = .82$).²⁶

²⁶ These measures are part of a larger questionnaire including measures of emotions, belonging, self-esteem (Van Beest & Williams, 2006), respect, rapport, the love triangle of self and partner (Sternberg, 1988), attitudes on arranged marriages and relationship satisfaction of self and partner before and after the conversation. Only the variables of interest to the current research question are reported here but further information can be obtained from the first author.

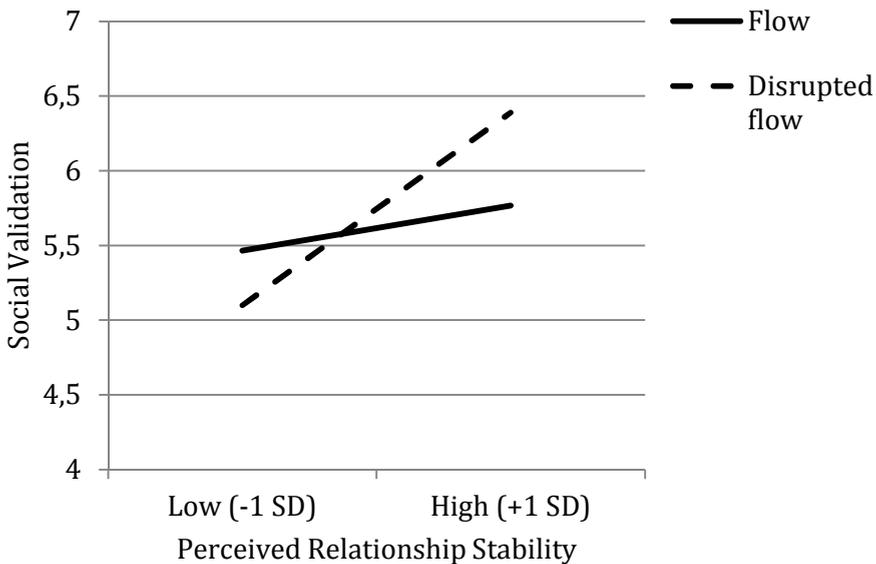
Results

One participant was removed from the analysis because of missing data. The intraclass-correlations (ICC1) for social validation (.42) and shared cognition (.61) indicated that multilevel modeling was required. To correct for the interdependence of the data within couples, we tested our predictions with hierarchical linear modeling analyses. We examined whether social validation was predicted by flow at the group level, perceived relationship stability (PRS) at the individual level, and the flow by perceived relationship stability cross-level interaction. All continuous variables were standardized prior to analysis. Perceived relationship stability-scores were on average high, with a mean of 6.39 and a standard deviation of .51. No effects of gender, age, or duration of the relationship on shared cognition or validation were found, and therefore these variables were not included in the final model.

HLM analysis revealed a main effect of perceived relationship stability, indicating higher social validation with increasing perceived relationship stability ($\gamma = .62$, $SE = .15$, $t(69) = 4.14$, $p < .001$). As predicted, no main effect of flow was found ($t < 1$), but the interaction of flow and perceived relationship stability was found, $\gamma = -.49$, $SE = .19$, $t(69) = -2.49$, $p = .015$, See Figure 8.1). Simple slope analysis revealed a significant positive effect of perceived relationship stability in the no flow condition ($\gamma = .62$, $SE = .15$, $t(69) = 4.14$, $p < .001$), but no effect in the flow condition ($t < 1$, *ns*). Further analyses revealed that partners high in perceived relationship stability (+1 SD) felt more socially validated when conversational flow was disrupted, rather than when the conversation had flow, $\gamma = .65$, $SE = .30$, $t(69) = 2.18$, $p = .036$. No difference was found for participants with low perceived relationship stability (-1 SD), $\gamma = -.34$, $SE = .30$, $t(69) = -1.14$, $p = .26$.

We performed a similar HLM analysis on shared cognition. A main effect of perceived relationship stability indicated higher levels of shared cognition with increasing perceived relationship stability ($\gamma = .49$, $SE = .12$, $t(69) = 3.95$, $p < .001$). We found no main effect of flow ($t < 1$). Furthermore, the PRS by flow interaction effect on shared cognition was not significant, $\gamma = -.19$, $SE = .16$, $t(69) = -1.23$, $p = .224$, although the means revealed a pattern similar to the findings on social validation.

Figure 8.1 Relation between perceived relationship stability and social validation for the different conditions of flow in Study 2.



Finally, we tested the alternative explanation that instead of perceived relationship stability, individual attachment styles could be responsible for the effects. In four additional HLM analyses social validation was regressed on each of the attachment styles, the flow manipulation and the attachment style by flow interaction. Results showed no significant main effects of any of the attachment styles on social validation (all $t_s < 1.58$, all $p_s > .1$), nor any effects of the attachment styles by flow interactions (all $t_s < 1.13$, $p_s > .1$). Similarly, for shared cognition, no main effects of any of the attachment styles (all $t_s < 1.20$, $p_s > .1$), nor any interaction effects were found (all $t_s < 1$, ns). The data thus provided no support for this alternative explanation.

Discussion

Study 2 showed that when a conversation has flow, perceived relationship stability had no influence on ones level of social validation. However, when conversational flow is lacking, people who perceive their relationship to be stable feel more validated than those who

Social validation in close relationships

believe their partner is dissatisfied. Moreover, participants with high perceived relationship stability feel more validated when conversational flow is disrupted than when the conversation is smoothly flowing. These results thus paradoxically indicate that among those who believe to be in a stable relationship, a defect in communication can lead partners to rely on their established shared reality, and therefore foster a sense of validation.

Study 3

In Study 3 we aimed to test the generalizability of the findings. First, in addition to romantic couples, Study 3 also included partners in other relationships (i.e. friendships, family-ties). Related to this point, this study examined a different moderator, namely relationship strength. Whereas relationship stability was an important predictor in romantic relationships, we expected it to be less relevant for people in, for instance, family relationships. Relationship strength, in contrast, would be applicable to a wide range of relationships. In addition, it allowed us to examine whether the effect was specific to perceptions of stability, or whether other factors generating a sense of security (such as relationship strength) would produce similar effects. Furthermore, in order to examine whether the effects would hold beyond telephone conversations, we used video-mediated communication between partners. Finally, rather than asking couples to come to the laboratory, in Study 3 we set up a field experiment, in which we approached and tested participants in a naturalistic environment (i.e. a shopping center).

eight

Methods

Participants. Dyads of participants were recruited in a shopping center in the Netherlands. The sample consisted of 130 participants ($M_{age} = 35.95$, $SD = 17.68$, 39% male, 61% female). Members of each dyad were previously acquainted to each other. On average, partners had been acquainted for 17 years ($SD = 14.65$ years). In return for their

participation, participants were either given a coupon of 6 euros to spend in the shop, or a cup of coffee and cake.

Procedure and materials. After agreeing to participate, members of the dyad were placed behind two tables where they filled out their consent forms. To measure *relationship strength*, participants answered three questions on 7-point likert scales, ranging from 1 = *not at all*, to 7 = *completely*: “How well do you know the participant with whom you will be talking?”, “Do you and the other participant interact frequently?”, “Is the participant whom you will be talking to important in your life?” ($\alpha = .88$).

The conversations took place in a quiet place in the shopping center. Here, two laptops were connected via a network cable, and located in such a way that during the conversation, participants could only see or hear each other through their headsets and their laptop screen. We developed a program for the interaction that allowed dyads to interact via both visual and auditory channels, and allowed us to introduce a delay in audiovisual feedback at some point in the conversation. Participants were instructed to talk about their holidays for 5 minutes. Previous research had shown this topic allowed participants to have a smoothly flowing conversation (Koudenburg et al., 2013a, *Chapter 4*). After 2.5 minutes of conversation, we introduced the flow-manipulation by delaying audiovisual feedback. There were five conditions: No delay vs. 0.5s delay vs. 1s delay vs. 1.5s delay vs. 2s delay. These different durations of the delay were intended to measure whether the effects would increase with longer delays. However, because the effects on social validation were similar across the different durations of the delay, we combined the results for the different delay conditions (coded -1) and compared these to the flow condition (coded 1). After the conversation, we measured social validation ($\alpha = .82$) and shared cognition as in Study 2 ($\alpha = .85$).²⁷

²⁷ Besides the reported measures, the questionnaire before the conversation included measures for motivation and attitudes on different holiday destinations. The questionnaire after the conversation also assessed participants' emotions, feelings of belonging, respect, entitativity, meaningful existence and their satisfaction with the technology used for the conversation.

Social validation in close relationships

As in Study 2, we expected that relationship strength would not influence the extent to which dyads would experience a sense of shared cognition and social validation in the flow condition. However, when auditory feedback was delayed, we expected the experience of social validation and shared cognition to be predicted by relationship strength.

Results

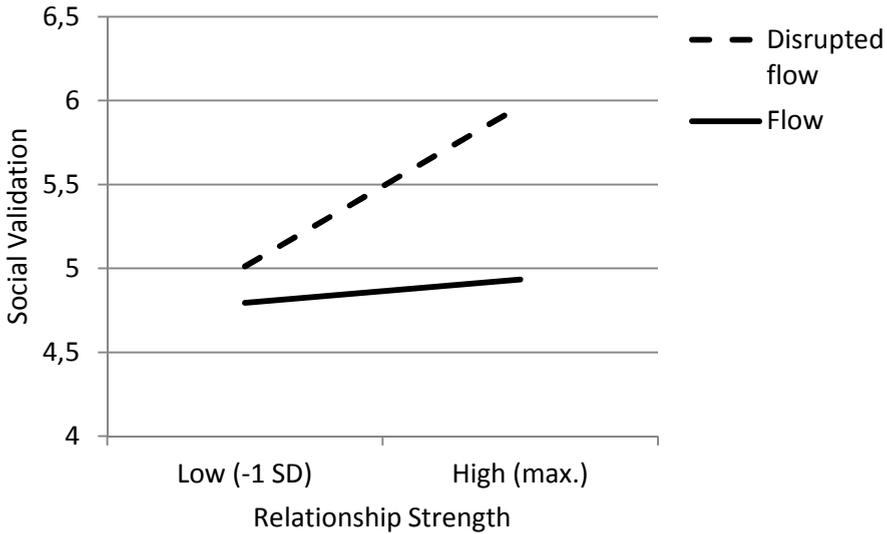
The ICC1 for social validation (.42) and shared cognition (.54) indicated that multilevel modeling was required. The scores on relationship strength were standardized prior to analysis (Mean = 6.31, SD = 1.20, with no differences between the conditions of flow, $t < 1.33$, *ns*). We examined whether social validation was predicted by the group level flow (vs. disrupted flow), relationship strength measured at the individual level, and the flow by relationship strength cross-level interaction.

HLM analysis revealed a main effect of relationship strength, indicating higher levels of social validation with increasing relationship strength, $\gamma = .32$, SE = .11, $t(126) = 2.87$, $p = .005$. A flow main effect revealed higher levels of social validation in the disrupted flow condition than in the flow condition, $\gamma = -.35$, SE = .13, $t(63) = -2.61$, $p = .012$. This main effect was qualified by the predicted flow by relationship strength interaction, $\gamma = -.24$, SE = .11, $t(126) = -2.15$, $p = .034$ (See Figure 8.2A). Simple slope analysis revealed that in the disrupted flow condition relationship strength significantly predicted feelings of social validation, $\gamma = .56$, SE = .13, $t(63) = 4.50$, $p < .001$.

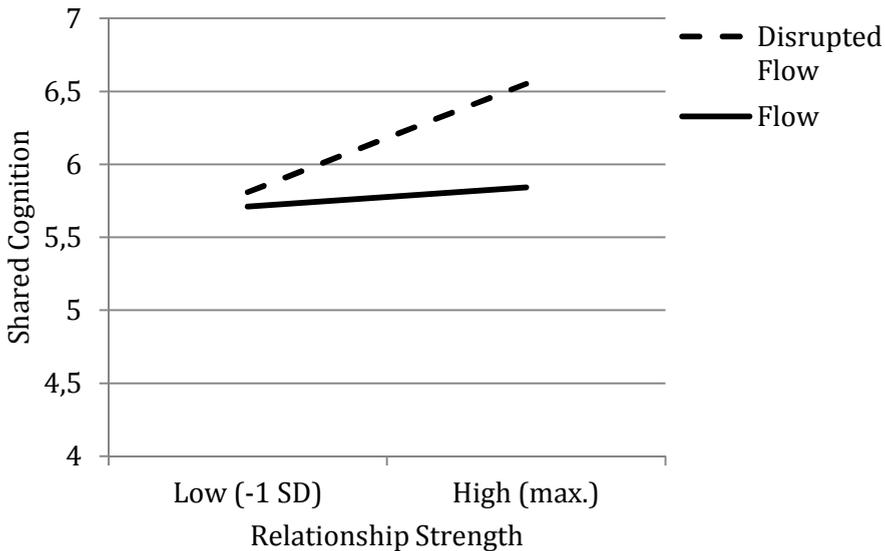
No such effect was found in the flow condition, $\gamma = .08$, $t < 1$, *ns*. Moreover, partners with high levels of relationship strength (i.e. maximum score, .69 SD above mean) felt more socially validated when conversational flow was disrupted, rather than when conversation was flowing, $\gamma = .52$, SE = .16, $t(126) = 3.33$, $p = .002$. No difference was found for partners with low levels of relationship strength (-1 SD), $t < 1$, *ns*.

Figure 8.2. Relation between relationship strength and social validation (A) and shared cognition (B) for the different conditions of flow in Study 3. Lines are plotted between 1 standard deviation below the mean relationship strength score and the maximum end of the scale.

A.



B.



Social validation in close relationships

A similar analysis on shared cognition revealed a positive main effect of relationship strength, $\gamma = .26$, $SE = .09$, $t(126) = 2.86$, $p = .005$. A marginal main effect of flow ($\gamma = -.23$, $SE = .12$, $t(63) = -1.95$, $p = .055$) suggested that shared cognition was somewhat higher in the no flow condition than in the flow condition. The predicted flow by relationship strength interaction was found, $\gamma = -.18$, $SE = .09$, $t(126) = -2.00$, $p = .047$ (See Figure 8.2B). Simple slope analysis showed a significant positive effect of relationship strength on shared cognition in the no flow condition ($\gamma = .44$, $SE = .11$, $t(63) = 4.18$, $p < .001$), but not in the flow condition ($\gamma = .08$, $t < 1$, ns). Further analyses revealed that partners with a high relationship strength (+ .69 SD) experienced higher levels of shared cognition in the disrupted flow condition than in the flow condition, $\gamma = .41$, $SE = .15$, $t(129) = 2.78$, $p = .007$. No difference was found for partners with low relationship strength (-1 SD), $t < 1$, ns .

eight

General Discussion

Previous research has repeatedly found negative effects for disruptions of conversational flow in conversations between people who were a priori unacquainted to each other (Koudenburg et al., 2011a; 2013a; 2013b; 2013c, *Chapter 3, 4, 6, 7*). However, the present research suggests that people in close relationships experience disruptions of conversational flow (e.g. brief silences, interruptions) not always in a similar negative way. More specifically, in a survey, a laboratory experiment, and a field experiment we found that when conversational flow between partners is disrupted, the perceived stability and strength of the relationship influences the extent to which such disruptions are interpreted as negative (e.g. misunderstanding, disagreement, Study 1) or as socially validating (Study 1, 2, 3). When the relationship is perceived to be stable or strong, a disruption of conversational flow results in *higher* levels of social validation than a smoothly flowing conversation does. When a conversation has flow, no influence of perceived relationship stability or strength is found. Study 2 and 3 showed a similar pattern of findings for feelings of shared cognition.

Results thus reveal a paradoxical effect showing that disruptions of flow can be experienced as validating to the extent that relationship is strong and stable. Although this finding may be counterintuitive, a potential explanation may be given by the literature on shared reality (Hardin & Higgins, 1996; Hardin & Conley, 2001). In a situation of conversational flow, the partners' viewpoints are easily accessible. On the one hand this enables partners to identify commonalities in their ideas, but on the other hand potential differences in opinion are also less likely to remain concealed. When conversational flow is disrupted however, the partners' viewpoints are less easy to access. As a result, partners rely on their prior beliefs about the relationship. In highly secure relationships, partners are likely to feel they know one another very well and to have developed a strong sense of shared reality. When communication fails, partners have more scope for interpreting their partner's view in terms of this shared reality and are likely to feel reaffirmed as a result.

These findings share some conceptual similarities with the Social Identity Model of Deindividuating Effects (SIDE). Research on the SIDE model has shown that when social identities are salient, group members express strong commitment to group norms *especially* when they are anonymous and when visual communication between participants is absent (e.g., Reicher, Spears, & Postmes, 1995, Postmes, Spears, & Lea, 1998; Postmes & Spears, 1998). The reason for this is that anonymity means that individual group members are not distracted by individuating information about others in the group: The ingroup self-stereotypes are not challenged by any concrete new information about individuals. Thus, an *absence* of communicative cues keeps ideas that already exist about "us" intact. Conversely, a presence of communicative cues means that new information needs to be verified as consistent with pre-existing ideas of "us".

In the present research, our reasoning is similar in some sense: In personal relationships, too, an absence of interpersonal communication may keep pre-existing ideas about "us" intact. Here too, the gaps left by deficiencies in communication are filled by prior beliefs that people have about the level of understanding and consensus within their relationship. However, our findings extend the research on the SIDE-

model by focusing on inductively formed groups, rather than abstract social categories (cf. Postmes, Spears, Lee, & Novak, 2005; Postmes, Haslam, & Swaab, 2005). Specifically, the present research shows that the process of induction, in which the interpersonal relation between partners gives rise to the sense of social unity, can ultimately generate a social unity that influences members of the dyad above and beyond the inter-individual level. The shared reality that emerged at the dyad level provided a strong basis for feelings of validation in conversations in which flow was disruptive. It appears that the dyad (or group) – and the shared reality that exists within that dyad – informs people about the validity of their ideas, when actual information about the personal standpoints of others is more difficult to access. In fact, the distorted conversation provides individuals with a scope for interpreting the ideas of the other, which, as research suggests, often leads to estimates that are more similar to one's own ideas than actual ideas of others (Koudenburg, Postmes, & Gordijn, 2011b, *Chapter 9*; Sillars, 1985). In a way, flow disruptions leave more room for interpretation, and if the context in which this disruption occurs is one of shared reality and common understanding, this will provide a sense of validation.

An alternative explanation for the effects could be that partners are initially threatened by a flow disruption, but engage in compensatory thoughts through which they may end up reporting higher levels of validation than they would have had when the conversation was smoothly flowing. Such a mechanism would be difficult to uncover, because at the point of measurement the threat may have already been reduced by these compensatory thoughts. In our data, we did not find higher levels of anxiety and distress in the disrupted flow condition than in the flow condition.²⁸ On a theoretical basis, we would expect

²⁸ Directly after the conversation in Study 2, participants indicated on two single items to what extent they felt distressed and anxious (1 = not at all, 7 = completely). Multilevel analysis revealed that levels of distress were somewhat higher in the flow condition ($\gamma = .77$, $SE = .34$, $t(36) = 2.27$, $p = .029$), but revealed no effect of condition on anxiety ($\gamma = .05$, $SE = .19$, $t < 1$, *ns*). No effects of PPS or the PPS by flow interaction were found (all t s < 1 , *ns*).

In Study 3, anxiety was measured similarly to Study 2. Distress was measured with three items (i.e. distress, at ease (R), comfortable (R), $\alpha = .71$). The disruption of flow did not affect levels of distress ($\gamma = .14$, $SE = .12$, $t(63) = 1.17$, *ns*) or anxiety ($\gamma = .10$, $SE = .09$, $t(63) = 1.05$, *ns*). Relationship strength marginally reduced levels of anxiety ($\gamma = -.16$, $SE = .09$, $t(126) = 1.84$, $p = .068$), but did not influence distress ($t < 1$, *ns*).

compensatory thoughts to be especially prevalent by those who perceive their relationship to be weak and unstable. However, the data revealed higher levels of validation by partners who perceive their relationship as strong and stable. Therefore, we believe that our initial explanation fits the data better than this alternative explanation.

Whereas previous research indicated that among people who have no a priori acquaintance, flow disruptions are often experienced as socially invalidating, we found no such effect for participants who scored lower than average on the measures of perceived relationship stability and strength. This can be due to the fact that participants in our sample scored on average very highly on these measures. A participant who is located one standard deviation below the mean still scored well above the midpoint of the scale, and is therefore unlikely to respond in the way that a complete stranger would.

In the present studies we have focused on brief conversations between partners and we should therefore be careful in generalizing these findings to long-term effects of disrupted conversational flow. When communication channels between close partners are for a longer period of time disrupted (e.g. when an expat frequently calls a partner in their home country on a poor line), it is plausible that the positive effects disappear. However, it could also be that the shared reality provides a framework that becomes in a way resistant to actual opinion changes on the other side of the line. The result may be that partners idealize their relationship, and hold on to a shared reality that conceals actual discrepancies in viewpoints (see also the literature on positive illusions, e.g. Murray, Holmes, & Griffin, 1996). On the one hand, one would expect differences between actual and perceived agreement between partners to be problematic in the long run. However, research shows that perceived agreement is often a stronger predictor of positive relationship outcomes than actual agreement (Pollmann & Finkenauer, 2009; Acitelli et al., 1993; Montoya, Horton, & Kirchner, 2008; Swann & Gill, 1997). Indeed, it may be that the ability to overcome or even positively interpret brief deficiencies in communication contributes to

Additionally, no flow by relationship strength interaction effect was found on anxiety ($\gamma = .14$, $SE = .09$, $t(126) = 1.58$, *ns*), nor on distress ($t < 1$, *ns*).

Social validation in close relationships

the stability of close relationships. These long-term effects provide an interesting route for further empirical investigation.

In conclusion, the results of these studies suggest that very subtle and presumably unconscious aspects of communication can influence social processes such as the maintenance of a shared reality. A minor disruption of conversational flow, such as a brief silence or a 1s delay in the line can either obstruct or foster relationship formation, depending on the context of the conversation. Previous research showed that in the (insecure) situation of meeting strangers, flow disruptions elicit questions about the consensus and decrease feelings of validation (Koudenburg et al., 2011a; 2013a, *Chapter 3, 4*). The present studies however show that when flow is disrupted in the secure context of a relationship, partners are likely to use their knowledge about the shared reality to infer their partner's agreement. In this way, a disruption of conversational flow can paradoxically foster feelings of social validation.

eight

