HOW COMFORTING MESSAGES FROM A DATING PARTNER PREDICT CHANGES IN REAPPRAISAL AND EMOTIONAL IMPROVEMENT

BY

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Abstract

Scholars have consistently shown the benefits of comforting messages for strangers but especially for couples. Nevertheless, it is unclear which factors provide a long-term benefit. This study focuses on two factors of emotional support that have an influence on emotional improvement and reappraisal of the situation: Verbal-Person-Centeredness (VPC) and Non-Verbal-Immediacy (NVI). In order to assess whether those factors have an influence on emotional improvement and reappraisal, couples (n = 83) were invited two times over a two week period. In their appointments they were assigned to their role as support seeker and support provider based on a personal problem in their relationship. I conducted a multiple regression in order to assess whether the support provider's VPC and NVI rated by the support seeker have an influence on emotional improvement and reappraisal of the support seeker at the first and second appointment. My findings showed that VPC and NVI could explain emotional improvement and reappraisal on the first but not on the second appointment, where VPC was a unique predictor, while NVI was not. Implications of these findings are discussed.

Thesis under the direction of Jennifer Priem, Ph.D., Associate Professor of Communication

Introduction

Scholars have consistently shown the benefits of emotional support (also known as comforting) including improvement in immune function, stress levels, and emotional states (Willis & Fegan, 2001). For a long time it was unclear what kind of messages were particularly helpful. Burleson and Goldsmith's (1998) *theory of conversationally induced reappraisal* suggests that it is a valuation-based mechanism by which comforting messages can affect a positive change in emotional states (Burleson & Goldsmith, 1998). One of the ways comforting messages facilitate these changes is through inducing reappraisal of the distressing situation. In this work, I will refer to reappraisal as a conscious change in the way an emotional stimulus is interpreted (Suri, Whittaker, & Gross, 2015). For example, breaking up with someone is usually spontaneously appraised as negative and can induce feelings of loneliness, sadness or anger. Reappraisal of the situation could reduce these negative reactions. One could try to see the situation as an opportunity for an overdue change or as effectively less dramatic as might appear at first sight. The *theory of conversationally induced reappraisal* also outlines the features of messages through which individuals can reappraise a stressful situation.

Although the theory was published 22 years ago, there are still few studies that undergird Burleson and Goldsmith's theory. Only the study of Jones and Wirtz (2006) provided a test of the theory. They explored how verbal and nonverbal emotional support can facilitate the cognitive reappraisal of upsetting emotions and thoughts. While this study highlighted how communication may function to facilitate reappraisal, additional research is still needed to fully answer the questions of how comforting message influence reappraisal and emotional improvement.

Furthermore, research has only begun to examine the effects of messages on reappraisal and emotional improvement beyond the short term. High and Solomon (2016) found that the effects of specific types of comforting messages are not isolated to people's initial reactions. In their study, they could predict long-term effects of verbal person centeredness, an aspect of comforting messages, by looking at immediate evaluations. High and Solomon (2016) focused on communication between strangers, however, and it is not unreasonable to assume that communication between partners may have a greater impact.

Accordingly, this study addresses two major goals. First, I examine how comforting messages in a conversation with a dating partner facilitate reappraisal and emotional improvement at the time of initial data collection. Second, I explore how comforting messages predict changes in reappraisal and emotional improvement over a two-week period. I begin by outlining the theory of conversationally induced reappraisals and explicate the message features outlined in the theory that facilitate change. I then explore the ways in which comforting messages may have durable effects on emotional improvement and reappraisal.

Theory of Conversationally Induced Reappraisal

One of the ways communication scholars have theorized how emotional support messages may facilitate positive outcomes is by engaging a distressed individual in a process of reappraising the stressful event. Because, according to appraisal theory, emotions and stress are an outcome of how people interpret or appraise a situation, any comforting messages that alter appraisals should lead to positive outcomes. In the following sections, I overview appraisal theory as the basis of the theory of conversationally induced reappraisal. I then explore the message features that are posited in the theory to have the greatest positive influence on appraisals.

Appraisal Theory

The basis of the theory of conversationally induced reappraisal is the appraisal theory, which says that the appraisal of a situation and its implications for personal well-being lead to emotions (Smith, 1989). The appraisal theory views emotions as being generated and thus changeable by generating a different mindset about the situation. Thus, the theory proposes that if a person appraises a situation as negative, it leads to negative emotions; but if they reinterpret the situations in a more positive light, they will experience more positive emotions (see Figure 1).

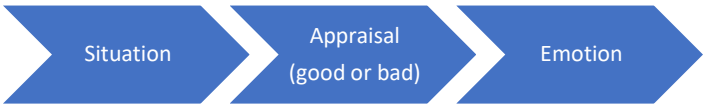


Figure 1: Appraisal Theory after Smith 1989

The theory of conversationally induced reappraisal is based on a form of appraisal theory designed by Lazarus and colleagues (Folkman, Lazarus, Dunkel-Schetter, DeLongis, & Gruen, 1986) (See figure 2). Lazarus applied the appraisal theory to explain components that lead to a negative evaluation of the situation and how these components can be changed. Thereby he does mainly talk about stress, when he talks about a negative evaluation of an event. Lazarus describes psychological stress as a special relationship between the person and the environment that is perceived by the person as straining or beyond one's own resources and endangering one's well-being (Lazarus & Folkman, 1986). According to his model, an upsetting event is evaluated by a person as either irrelevant, positive, or dangerous. This evaluation of the stressor for the individuum is called primary appraisal. Danger for the individuum is classified as either a loss, a threat mostly in the form of expected loss, or a challenge associated with

different emotions such as anger, fear or excitement (Lazarus & Folkman, 1986). If the stressor is classified as a threat, the question arises as to whether sufficient resources are available. Lazarus called this the secondary appraisal. Other than the primary evaluation, the secondary evaluation goes one step further and looks at resources that help to handle the situation. Resources can come from the environment (e.g. social support) or from the person himself (e.g. skills). Stress arises when these resources are assessed as insufficient to meet the stressor (Lazarus & Folkman, 1986).

Lazarus recognized that people deal very differently with perceived stress. While some focus on the problem, others tend to keep an eye on their emotions. He describes this as two forms of coping: problem-focused and emotion-focused. Most problem-focused strategies refer to changing the situation. In many cases, however, this cannot be achieved because it is often not possible to leave specific situations. In these cases, emotion-oriented coping strategies are more effective. If one divides these forms further, it becomes apparent that not all forms of emotion regulation function equally well in the long term. One common form of emotion regulation is for example distraction. This form of emotional regulation seems to work at first (Priem, 2007), but it does only work for a short period of time. The same is true for denial or suppression (Wegner, Schneider, Carter, & White, 1987). Only reappraisal of the situation seems to have long-lasting effects (High & Solomon, 2016).

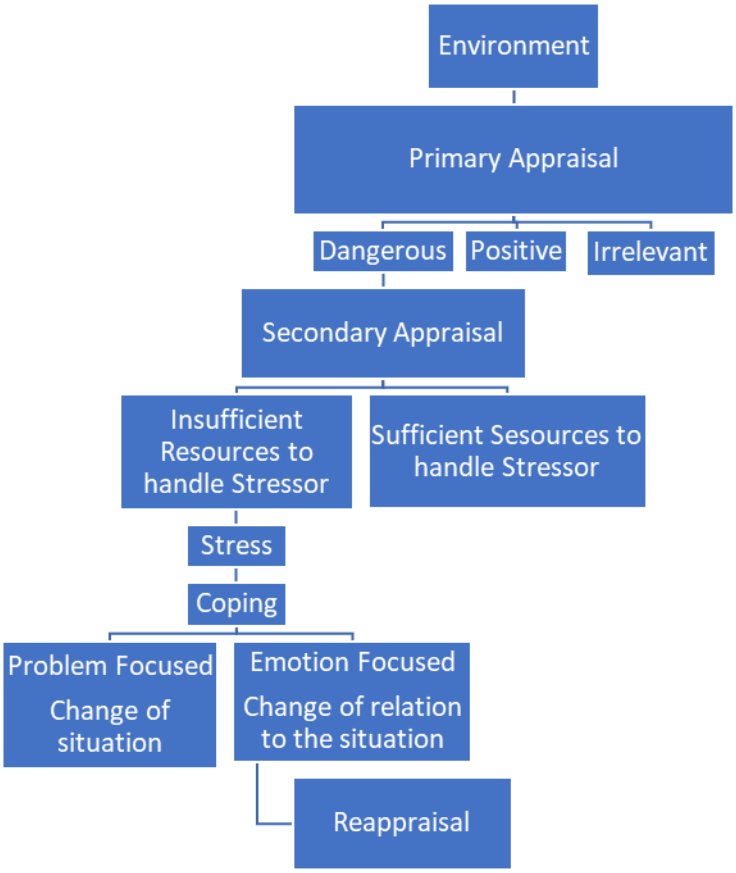


Figure 2: Lazarus Model of Appraisal

Lazarus' results can be seen as the starting point for a whole movement of studies which showed that appraisal results in changed emotions (e.g.,(Ross, Rodin, & Zimbardo, 1969);Kanouse et al., 1972); see the reviews by (Lazarus, 1991)Lazarus, 1991;(Smith & Pope, 1992). Thus, 10 years after Lazarus created his model, Burleson & Goldsmith (1996) identified reappraisal as a key and, perhaps, the central coping mechanism through which emotional change occurs.

Comforting Messages that Influence Reappraisals

Burleson and Goldsmith (1996**)** were the first who tried to find a theory behind how social support through comforting messages work. They described the term "comforting" as "encompassing communicative attempts to alleviate the emotional distress of another" (Burleson & Goldsmith, p. 246). The "communicative attempts"

Burleson and Goldsmith (1996) describe are not limited to verbal messages. They also included nonverbal forms of behavior like nodding, leaning forward, or physical contact. They included basically everything that is intended to bring about a lessening of emotional distress and all forms that attempt to alleviate negative feelings. In line with Lazarus' model, when used in a supportive conversation, the "right" support behaviors should facilitate reappraisal and therefore, facilitate emotional improvement. Reappraisal of the primary appraisal could be induced by a supportive conversation that assists distressed individuals in perceiving a situation to be less negative or more positive. Reappraisal of a secondary appraisal could be provided by demonstrating that others care for the support seeker and are available for help. Thus, in the following section, I review the messages that are proposed to be the most effective at facilitating reappraisal.

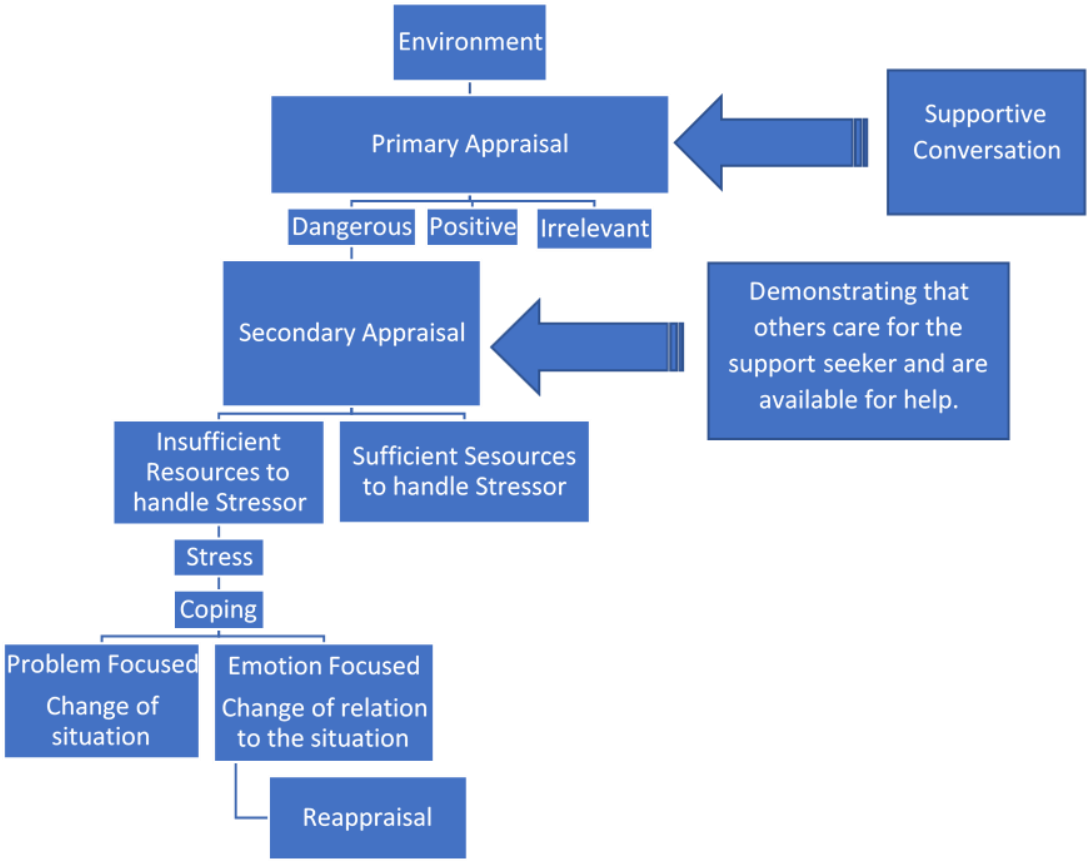


Figure 3: Appraisal Theory: Leverage points for reappraisal

Verbal person-centeredness (VPC) and nonverbal immediacy (NVI). The *theory of conversationally induced reappraisal* outlines two message features that are especially important for facilitating reappraisal: verbal person centeredness (VPC) and nonverbal immediacy (NVI). Verbal person centeredness refers to messages that validate and legitimize the feelings of a distressed individual. For example it would be verbal person centeredness if a partner says something like "This must have been really hard for you." Or rephrases what the other person had said. Basically, VPC includes all forms of active listening. This means, that it measures to which degree a support provider validates the distressed person's feelings and encourages the support seeker to talk about the upsetting event (Applegate & Delia, 1980; Burleson, 1982). For example it would be verbal person centeredness if a partner says something like "This must have been really hard for you." Or reframes the phrases. It basically includes all forms of active listening. Historically, VPC was referenced as person centeredness, but in order to acknowledge the focus on verbal rather than nonverbal behavior the verbal component was included (Jones & Guerrero, 2001).

The benefits of verbal person centeredness are not limited to comforting behavior. It seems like almost every kind of communication is more effective when the sensitivity of a response to a distressed person's emotional state, perspective, and situation is high. For example, it also works for persuasion (Clark & Delia, 1979), parental discipline (Applegate, 1980), explanatory discourse (Rowan, 1988), conflict management (Samter & Ely, 1985), and ego support (McCullough & Burleson, 2012). Most scholars measure VPC and the outcomes associated with it in three major levels: low, moderate and high (Burleson & Goldsmith, 1996; Jones & Wirtz, 2006) (See figure 4). Comforting messages low in VPC deny another person's feelings and

perspectives. Confederates who show low levels display boredom and appear distracted or tired during the conversation. Their statements encourage the distraught person to forget about her or his feelings (e.g., “I think you ought to get over it”), minimized his or her feelings (e.g., “I wouldn’t worry about it”), or explicitly blamed the participants for the problematic situation (e.g., “Well, you could have studied harder” (Jones & Wirtz, 2006). Besides that, low levels could also occur when confederates switch the conversation to an unrelated topic or to begin talking about personal concerns (e.g., “Guess what happened to me?”).

Most people show moderate levels of VPC (Buller & Burgoon, 1996). Jones & Wirtz, (2006) define a moderate level by simple expressions of condolence that we use in every situation. These mostly implicitly acknowledgments and legitimizations of another’s feelings and perspectives are for example statement like ”I am sorry to hear that” or ”Geez, that sounds pretty bad” or “It is too bad you broke up after being together for such a long time”. These often-used statements all have in common that they only express mild interest and concern for the other person.

Comforting messages high in VPC explicitly acknowledge, elaborate, and legitimize the other’s feelings and perspectives (Applegate & Delia, 1980; Burleson, 1982). The expressions deviate from what most people use in a typical interaction. They are characterized by the support provider paying close attention on the emotions expressed by participants. For example, they use comforting statements that expressed empathy (e.g., “I understand. I feel so bad for you”) and acceptance of the other’s feelings (e.g., “I don’t blame you for feeling that way”). This condition is the only one that also facilitates reappraisals by encouraging the support seeker to talk about their feelings (e.g., “Man, how are you feeling right now?”). Besides that support providers might also ask clarifying questions about the upsetting event (e.g., “So he never talked

with you in person?"), check the perception of the participants (e.g., "Are you mainly upset or disappointed?"), or tied specific emotions to certain aspects of the upsetting event (e.g., "What about the event made you feel angry?") (Jones & Wirtz, 2006).

Nonverbal immediacy is shown in behaviors that reflect warmth and closeness. Good examples are behaviors such as close proximity, forward lean, facial expressiveness, and gaze, which reflect interpersonal warmth (Andersen & Andersen, 2005; Jones & Guerrero, 2001). Like VPC, NVI can be best described in three levels: low, moderate and high. Low levels are defined by reduced eye contact (approximately only 20%–30% of the conversation), low facial animation and distancing from the other person by leaning back (Jones & Wirtz, 2006). Like moderate levels in VPC, moderate levels of NVI display the average person's nonverbal behavior. In this condition the support provider holds eye contact between 31% and 79% of the time and shows and demonstrates mild interest by leaning a little bit forward. At a high level of NVI, however, support providers demonstrate warmth and concern by leaning forward most of the time or even move closer to participants. Their body position is completely oriented toward the other person and they increase eye contact to approximately 80%–90% of the time. Besides that, they show their interest and concern by putting "lots of warmth" in their voices.

Level of VPC	Low	Moderate	High
Definition VPC	Deny of another person's feelings and perspectives	Simple expressions of condolence	Explicit acknowledgement, elaboration, and legitimization of other's feelings and perspectives
Definition NVI	Distancing from the other person	No distancing but also no active engagement	Complete oriented toward the other person

Example VPC	"Guess what happened to me"	"It is too bad you broke up after being together for such a long time"	"Are you mainly upset or disappointed?"
Example NVI	Leaning back	Not coming closer	Leaning in, eye contact for more than 80% of the time
Consequence:	Reappraisal is unlikely to occur		Message is evaluated favorably Reappraisal is likely to occur

Figure 4: Levels of VPC and NVI and associated outcomes

Research shows that messages or interactions that contain higher levels of VPC or NVI are perceived to be the most helpful, effective, and highest quality. (Goldsmith, McDermott, & Alexander, 2000; High & Dillard, 2012; Jones, 2004; Jones & Guerrero, 2001). Other studies could confirm these results in laboratory studies by showing a link between high levels of VPC and NVI to emotional improvement and feelings of calm (Jones, 2004; Jones & Wirtz, 2006).

Taking everything together, the research supports the role of VPC and NVI in emotional improvement and reappraisal. Accordingly, I forward the following hypotheses:

H1: Support seekers who perceive greater VPC from their partner report more (a) emotional improvement, and (b) reappraisal at the time of initial data collection

H2: Support seekers who perceive greater NVI from their partner report more (a) emotional improvement, and (b) reappraisal at the time of initial data collection,

As previous studies have shown, VPC and NVI should have positive effects on reappraisal and emotional improvement. The results should confirm the results of Jones and Wirtz (2006). Besides they should extend their results to more natural conversations. By researching conversations between couples instead of between

strangers we expected to reach higher levels of VPC and NVI. Most of the studies mentioned earlier manipulated the level of VPC and NVI the participants were asked to display. This study purposely refrains from doing so. By doing so, we hope to reach higher levels of external validity.

To extend the current research we will also focus on durable effects of VPC and NVI in a more natural context. The next section, therefore, explores if and how these features of communication can predict future emotions.

Durable Effects of Emotional Support

High and Solomon (2014) reported that the positive effects of messages high in VPC persist for at least three weeks subsequent to an interaction. In a later study, they explored the mechanisms linking variations in VPC to longitudinal outcomes. They based their study on the indirect effects model which suggests that support receivers' initial assessments of messages shape their outcomes over time (Bodie, Burleson, & Jones, 2012; High & Dillard, 2012). High and Solomon predicted that message characteristics are indirectly associated with longitudinal outcomes through their effect on people's initial evaluations of messages. Therefore, they suggest that messages with higher levels of VPC produce positive longitudinal outcomes because they are evaluated favorably immediately after reception. They found that evaluations mediated the influence of level of VPC on longitudinal impressions of both support quality and improvement in a stressor (See Figure 5). Besides that, they found that support providers' sex moderated the results, such that indirect effects were more likely to be produced by female than male support providers.

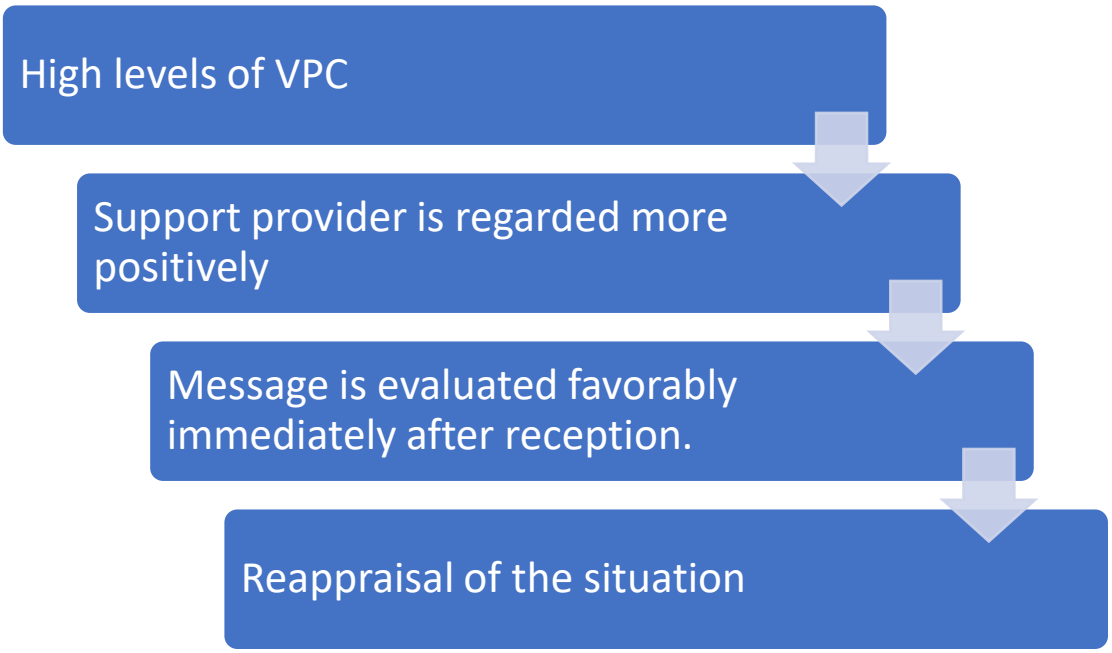


Figure 5: Assumption of the Correlation between high levels of VPC and Reappraisal

Even if not mentioned by High and Salomon, a possible explanation for this effect could also be found in the Elaboration Likelihood Model (ELM). The model describes the impact of a persuasive message on the recipient's attitude to the subject of the message. The ELM is based on two types of processing (elaboration) of a message that can be considered antagonistic in terms of the impact on the change of attitude due to persuasive communication: Central processing of the message and peripheral processing of the message. The central processing is oriented exclusively to the nature of the argument and to whether the recipient has the cognitive ability to process the information and is interested in the message. Peripheral processing, on the other hand, uses only peripheral stimuli. These include characteristics of the transmitter such as its attractiveness, (presumed) competence, length of communication and depth of communication. The routes interact with each other so that there is always some effect of the peripheral route. For our model, this means that long-term effects can be triggered both by interest in the message and by peripheral cues that indicate the depth

of a communication such as VPC and NVI (See Figure 6).

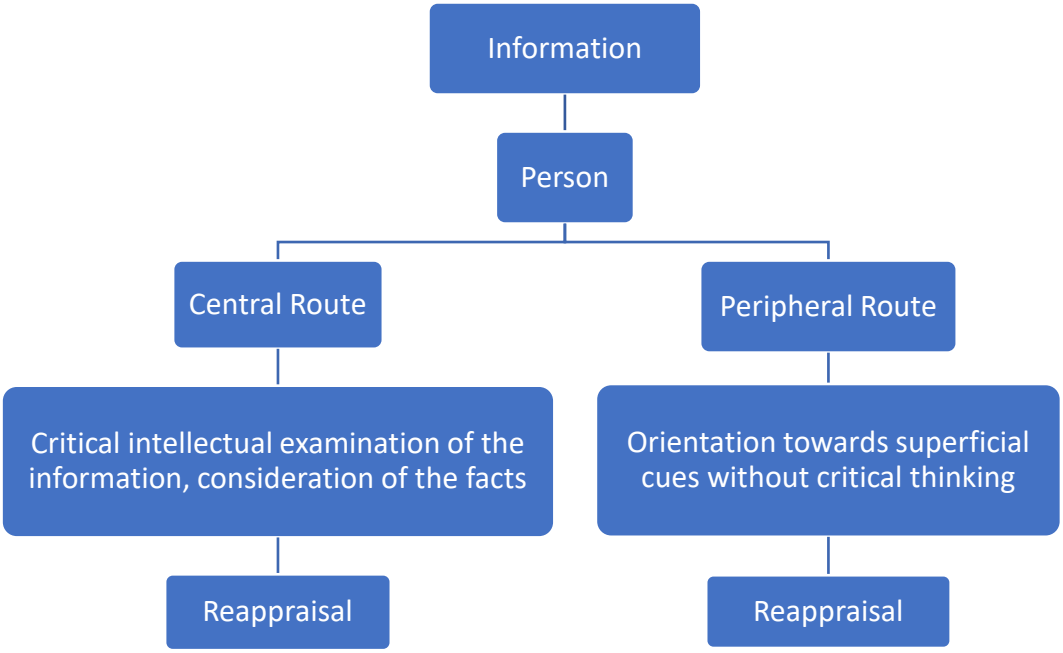


Figure 6: Elaboration Likelihood Model (ELM). Two ways to induce reappraisal.

Besides being important for our attention and processing, peripheral stimuli such as VPC and NVI also affect our mood. If someone really engages in communication we are able to develop more emotions (Berdahl & Martorana, 2006). This effects our memory: Emotional events are remembered better than neutral events possibly because the amygdala enhances the function of medial temporal lobe memory system (Dolcos, LaBar, & Cabeza, 2004). Thus, we can assume, that a more emotional conversation changes our memory and thus has more long-term effects. For our study we assume that if the support provider really engages in the situation by showing NVI and VPC, it is more likely, that the support seeker develops more emotions and that we thus see more long-term effects.

Taking everything together, the research suggests that VPC and NVI have long-term effects on emotional improvement and reappraisal. Accordingly, I forward the following hypotheses:

H3: Support seekers who perceive greater VPC from their partner report more (a) emotional improvement, and (b) reappraisal two weeks after initial data collection,

H4: Support seekers who perceive greater NVI from their partner report more (a) emotional improvement, and (b) reappraisal two weeks after initial data collection (T2).

Durable effects of emotional support – change between T1 and T2.

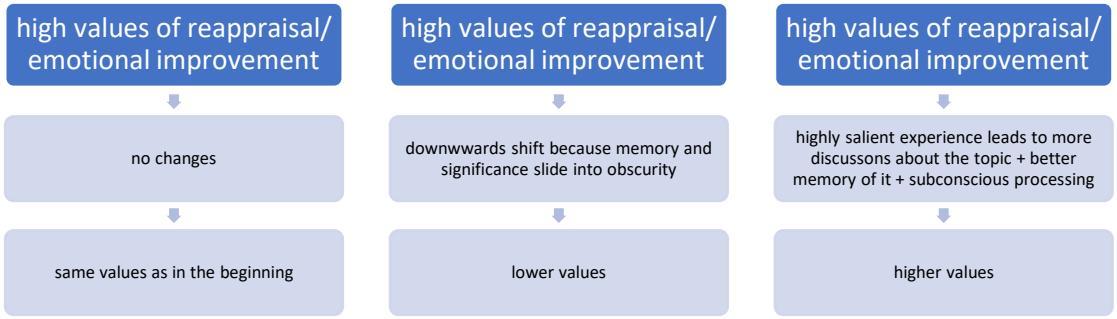
Considering long term effects, raises the question of the extent to which the values of T1 and T2 are related and whether there are effects that only become apparent later. We assume that VPC and NVI have such a strong effect that they significantly improve reappraisal and emotional improvement and this also has long-lasting effects. A possible correlation of the values would therefore be that a basic level is created by the conversation, which then does not change any more in the following weeks. In this case, H1 to H4 would be applicable and there would be no significant change between the values. It would also be possible that a negative effect would occur. The participants could first give a high base value which then shifts downwards over time. However, the high significance of the topic described by the participants speaks against this. A topic that has such a high significance is probably discussed even more frequently by the couple.

We assume that the values will increase from T1 to T2. There are various reasons for this. First of all, we can assume that the couple will have more conversations over the next two weeks. It seems likely that the issue addressed in our conversations will be discussed further in these conversations. Firstly, because it is easier for us to talk about topics we have already discussed and secondly because the

conversation took place in an unfamiliar environment. Unusual environments lead us to develop a better memory of what has been said and therefore make it more meaningful. The fact that the topic is now being discussed further could lead to a self-enhancing process. Those who have already shown a lot of VPC and NVI in the first conversation will probably continue to do so, as our way of talking to our partner is usually very consistent. The same values of VPC and NVI can continue to work and reinforce the reappraisal and emotional improvement. Besides, more time gives us more room to come up with new ideas. It seems likely that in an environment in which the support seeker feels safe to make changes this process is even more likely to occur (Figure 7).

In summary, I assume that the values of reappraisal and emotional improvement

Figure 7: Three ways values of Reappraisal could change over time



increase even further through further cognitive processing. High values in VPC and NVI should have a greater effect on reappraisal and emotional improvement than low values because they trigger these processes. Accordingly, I forward the following hypotheses:

H5: Support seekers who perceive greater VPC from their partner report a greater change in (a) emotional improvement, and (b) reappraisal over two-week period.

H6: Support seekers who perceive greater NVI from their partner report a greater change in (a) emotional improvement and (b) reappraisal over two-week period.

Method

This study reports a secondary analysis of data previously published in (Priem, 2007) about the influence of verbal person-centeredness (VPC) and nonverbal immediacy (NVI) on reappraisal and emotional improvement.

Dating couples reported on a recent stressor experienced by one individual (i.e., support seeker) that was discussed it with their partner (i.e., support provider). The appraisals of problem severity were measured from both perspectives. The study focused on appraisal and emotional improvement based on the level of VPC and NVI as the independent factors relevant to our hypotheses. The dependent variables measured the perceptions of the conversations from the perspectives of support providers and receivers.

Participants

For the study, 108 dating dyads were recruited from undergraduate communication courses at a large Midwestern public university and at a small private Southeastern university. Independent samples t-tests showed that participants' reports on all study variables did not differ based on the university they attended; therefore, the samples were merged. The participants age ranged from 18 to 34 years (M = 20.24, SD = 1.84) and included all levels of class standing (Freshman = 20, Sophomore = 26, Junior = 25, Senior = 24, Advanced degree = 5). Most of them described themselves as Caucasian (n = 83/76; African American n = 4/5; Asian n = 10/10, Hispanic n = 6/5, and other n = 5/6). Most of them reported to be in a serious relationship (74.1%, n = 80), while 24 couples reported that they were casually dating, 1 couple was engaged, and 2 couples were married. The length of relationship ranged from .5 to 204 months (17 years) (M = 15.42, SD = 23.26). For each dyad there was an individual identified as

a support receiver (70 females, 38 males) and a support provider (30 females, 72 males, 6 missing) in a procedure outlined below.

Procedures

When the participants and their partners arrived at their research appointment, they provided informed consent. The partner could deny consent without penalty to the participant. After giving their consent, the couple had to identify a stressor in a topic identification task. In order to assess the support receivers' and providers' experience of the same stressor, researchers began by explaining that each person should think about stressors or problems in their own life that occurred within the last two weeks. Then each partner received five notecards and was asked to write one stressor/problem on each card and to complete as many of the cards as they could. For each reported stressor, the participant provided the following information: (a) a brief description of each stressor, (b) the severity of the stressor from 1 to 100 where 1 represents problems about which they are not very concerned, 50 signifies a problem that bothers them at least occasionally, and 100 represents a very severe problem that they think about every day, (c) whether they had talked to their partner about the stressor and (d) if they think they will continue to talk to their partner about the situation (yes/no). In order to find a topic that the couple was able to talk about, any cards where the participant answered no to the final questions were removed. To make sure that both participants remembered the topic, the notecards were swapped and when one of them did not remembered talking about the topic, the card was removed as well. Finally, the problem with the highest reported level of severity was chosen as the topic for the session. If multiple cards had the same level of severity, a card was chosen at random.

After completing this task, the perspective from which each person would be reporting was chosen based on who nominated the stressor. Since the topic seems to be

more important for the person who named it, this person got the role of support seeker and the partner got the role of the support provider. Then, the couple was separated and completed online surveys based on their assigned roles. The surveys included demographics, relationship characteristics, and perceptions of the conversation(s) surrounding the nominated stressor.

The rest of the data was collected via an online follow up two weeks later. The survey questions included perceptions of supportive behavior and outcomes (i.e., emotional improvement) surrounding the topic in the last two weeks. Both participants were asked to think only about conversations focusing on the nominated stressor and outcomes they experienced since the first data collection session.

Measures

The surveys the couple received were almost identical, with the exception of the conversational outcomes, reappraisal and emotional improvement, which were measured from the support receiver's perspective only. Besides that, the perspective in which they answered was different: Support receivers reported their perceptions of their partners' behavior in the conversation(s) (i.e., my partner was…), while support providers rated their own behavior (i.e., I was…). Thus, the sample items listed below from one perspective are the same as those reported from the other perspective.

Verbal person-centeredness (VPC). VPC can be measured in several different ways. In general, it can be standardized by providing participants with supportive statements that vary in VPC or it can be a little less standardized by training confederates to display varying levels of VPC. Nevertheless, both ways do not necessarily reflect the couple's usual way of dealing with each other. Because of that, the participants were not primed instead, a self-report measure of perceived VPC upon previous conceptualizations of VPC by Burleson (1983) and Burleson & Samter,

(1985) was created. The scale allows participants to self-report the extent to which they believed their supportive interactions contained the foundational elements of VPC. As the participants were divided into support seekers and support providers, providers reported on their own behavior and receivers reported their perception of their partner's behavior on a 5 point Likert-scale (1 = *strongly disagree*, 2 = *disagree*, 3 = *neither agree nor disagree*, 4 = *agree*, 5 = *strongly agree*). Examples for the items from the support seeker's perspective were, "My partner made me feel comfortable talking about the problem," "My partner encouraged me to focus on my thoughts and feelings related to the problem," "My partner got me to tell my story about the problem," "My partner asked questions about the problem," "My partner asked me to elaborate on my feelings," "My partner validated my feelings during the conversation," and "My partner created a safe place to talk about the problem I was having." All items were averaged to create a composite measure of VPC from each person's perspective (receivers M = 4.12, SD = .57, α = .85; providers M = 4.05, SD = .46, Cronbach´s α = .76).

Nonverbal immediacy (NVI). In order to measure NVI items from Jones and Wirtz's (2006) coding of nonverbal immediacy were adapted. Like in VPC, receivers and providers reported their perception of the support provider's behavior on a 5-point Likert-scale (1 = strongly disagree, 5 = strongly agree). Items from the support perceiver's perspective included, "My partner leaned in close when I described my problem," "My partner looked directly at me while he/she was speaking," "My partner did things with his/her body (e.g., nodded, made good eye contact, said 'yes' or 'mm hmm') to get me to keep talking about my problem," and "My partner tried to convey feelings of warmth and openness." All items were averaged to create a composite measure of NVI from each person's perspective.

Reappraisal. In order to assess reappraisal, items from Jones and Wirtz (2006) were used again. Besides that, items from Holmstrom and Kim (2015) were added to capture changes in perceptions of the situation. The items for the support receivers included open questions like: "After talking to my partner…" and rated the extent to which they agreed with statements such as, "I have a more positive outlook on the situation," "I have reevaluated the situation," "I have adopted a less negative perspective," and "I have reframed the distressing event." All questions were on a 5-point scale (1 = strongly disagree, 5 = strongly agree) and negatively worded items were recoded so that higher values reflect greater reappraisal.

Emotional improvement. To assess emotional improvement questions from Jones and Wirtz (2006) were included: For example: "I feel better after talking with my partner," "My partner made me feel better about myself," and "I feel more optimistic now that I have talked to my partner." Besides that, items used in previous research by Priem and Solomon (2015) were also included in order to assess perceptions of stress reduction, Examples of this are: "I feel less stressed after talking to my partner." Support receivers rated their degree of agreement on a 7-point Likert-scale (1 = strongly disagree, 7 = strongly agree). All items were recoded so that higher values reflect more emotional improvement and were averaged to create a composite measure of emotional improvement, which was measured during the first data collection session.

Descriptive statistics

The descriptive statistics showed us overall high levels of emotional improvement. The mean for emotional improvement on the first point of data collection was 4.66 on the 7-point Likert-scale (approximately 33% under the maximum) and the standard deviation was 0.62. At the second point of data collection the mean for emotional improvement was slightly lower at 4.61 with a standard deviation of 0.59.

The mean for the change of emotional improvement was -0.08 with a standard deviation of 0.71. The slightly larger change was due to the fact that there was no data available for all participants at T2. Therefore not all data of T1 could be included.

When we just looked on the data with positive change, we could see a mean of 0.24 with a standard deviation of 0.40. The data with negative change showed slightly bigger mean of 0.32 with a standard derivation of 0.44.

The descriptive statistics of reappraisal showed that participants rated reappraisal on average slightly higher than emotional improvement. With a value approximately 26% under the maximum of the 5-point Likert-Scala the mean for reappraisal was the same for the first and second point of data collection (M = 3.72, SD = 0.63). The mean for the change of reappraisal was -.04 with a standard deviation of 0.62. The mean for the data with a positive change was .23 with a standard deviation of 0.36. The data with negative change showed slightly bigger mean of .26 with a standard deviation of .36.

The mean for VPC was high as well (M = 4.11, SD = .57). With 18% under the maximum of the 5 point Likert-scale it was even higher than the mean for NVI (M = 3.99, SD = .76) which was 20% under the maximum of the 5 point Likert-scale.

Data analysis

Multiple regression analysis was used to test the hypotheses to assess the effects of VPC and NVI on emotional improvement and reappraisal while controlling for each other. To test if the prerequisites for multiple regression were met, I tested for multicollinearity, autocorrelation, linearity, homoscedasticity and normal distribution of residuals. Since none of the values were below 0.1 and none of the tolerance values were above 10, the assumption of no multicollinearity has been met, however, VPC and NVI were moderately correlated ($r(106) = 0.64$, $p < .001$). Durbin-Watson statistics fell within an expected range, thus indicating that the assumption of no autocorrelation of residuals has been met as well. I assessed linearity, homoscedasticity and normal distribution of residuals graphically as can be seen in the examples (See Figure 8 and 9). All participants who fall out of the range of three standard deviations above or below the mean of one of the variables were excluded from all analyses (7 participants).

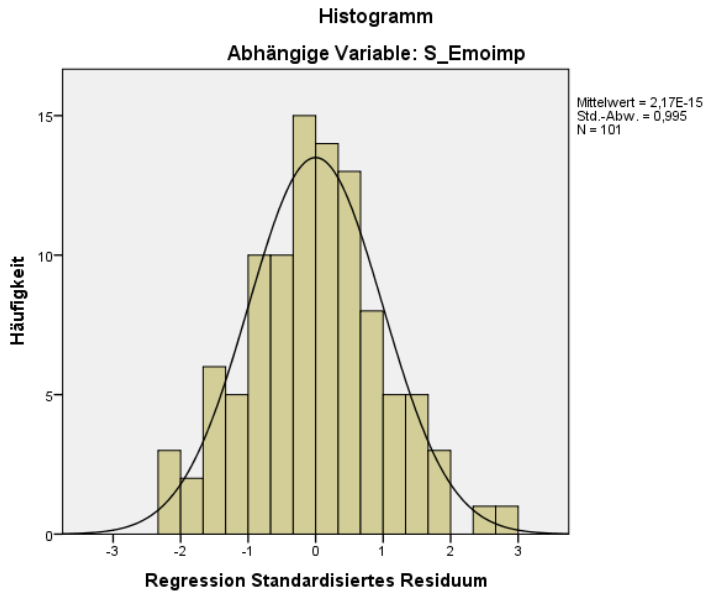


Figure 8: Histogram of standardized residuals of multiple regression of Emotional Improvement on VPC and NVI

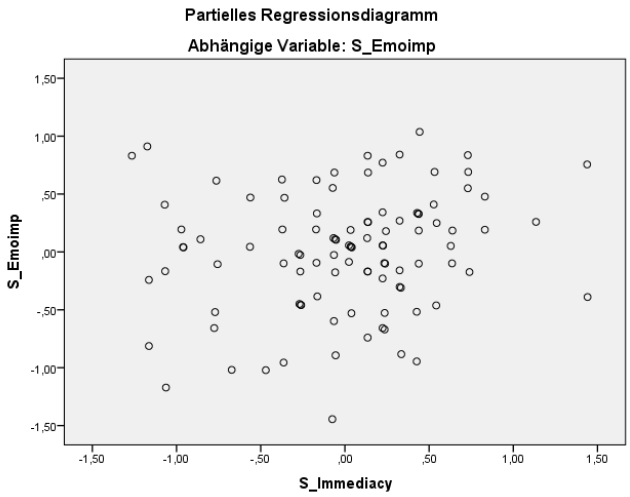


Figure 9: Scatterplot of Immidiacy and Emotional Improvement

The change variables for reappraisal and emotional improvement were created by subtracting the value of the variables at the initial data collection from the value two weeks later. Thus, a positive value indicated a positive change, a negative value a negative change over the two-week period. In addition, to examine the changes more closely the positive and negative changes were analyzed separately. For this purpose, the values of all participants showing a negative change were replaced by zero to analyze the positive change only. For negative change, all values from participants showing a positive value were replaced by zero. For easier comparison with positive change, all negative values were made positive.

Results

Correlations

Before analyzing with a regression, I began examining the data by calculating correlations among the variables (see Table 1).

Table 1: Correlation of predictors with outcomes at different time points

	T1				T2		T2-T1	
	NVI	VPC	Emo. Imp.	Reapp.	Emo. Imp.	Reapp.	Emo. Imp.	Reapp.
NVI	1	.631**	.479**	.350**	.234*	.273*	-.271*	-.109
VPC		1	.630**	.488**	.236*	.251*	-.351**	-.293**

Note. n = 83. Significant: * <. 05, ** < .01 Emo. Imp.: emotional improvement. Reapp.: Reappraisal. Numbers in parentheses indicate p-values for the pearson correlation coefficient. T1: Initial data collection after conversation. T2: after two weeks. T2-T1: correlation between changes.

First, I observed positive correlations among support receivers perceivedNVI and perceived verbal person centeredness. Support seekers perceived NVI and verbal person centeredness only correlate with emotional improvement and reappraisal on the first point of data collection but not on the second date. I observed negative correlations among support seekers perceived NVI and the difference score that showed the change in emotional improvement, but not with the change in reappraisal. Support seekers perceived verbal person centeredness correlated significantly negative with both: The difference score that showed the change in emotional improvement and the difference score of reappraisal.

Effects of VPC and NVI on emotional improvement and reappraisal at T1

H1 predicted that support seekers who perceive greater VPC from their partner report more (a) emotional improvement, and (b) reappraisal at the time of initial data collection (T1). H2 predicted that support seekers who perceive greater NVI from their partner report more (a) emotional improvement, and (b) reappraisal at the time of initial data collection, controlled for VPC. Using multiple linear regression, I first regressed

emotional improvement onto VPC and NVI. VPC and NVI accounted for a significant portion of the variance in emotional improvement (R^2 = .32, corrected R^2 = .31, F(2,98) = 23.37, p < .001). Nevertheless, controlling for the other predictor, only VPC was a significant unique predictor of emotional improvement (b = 0.49, t(98) = 3.91, p < .001, 95% confidence interval (CI) [0.24, 0.74]) while NVI only showed a trend level effect (b = 0.15, t(98) = 1.67, p = .098, 95% CI [-0.03, 0.33]) (see Figure 10).

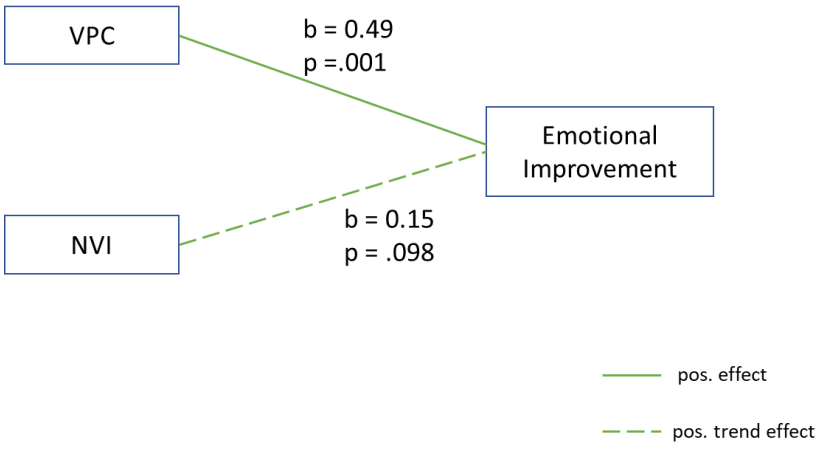


Figure 10: Multiple Regression of Emotional Improvement at T1 on VPC and NVI, corr. R^2 = .31, p < .001

Similar to this, I tested the impact of NVI and VPC on reappraisal at the time of initial data collection using a multiple linear regression. VPC and NVI accounted for a significant portion of the variance in reappraisal (R^2 = .15, adjusted R^2 = .13, F(2,98) = 8.66, p < .001) (see Figure 11). As it was the case for emotional improvement, only VPC was a significant unique predictor of reappraisal when controlled for the other predictor (b = 0.34, t(98) = 2.38, p = .020, 95% CI [0.06, 0.63]). NVI showed no significant effect (b = 0.12, t(98) = 1.02, p = .309, 95% CI [-0.10, 0.31]).

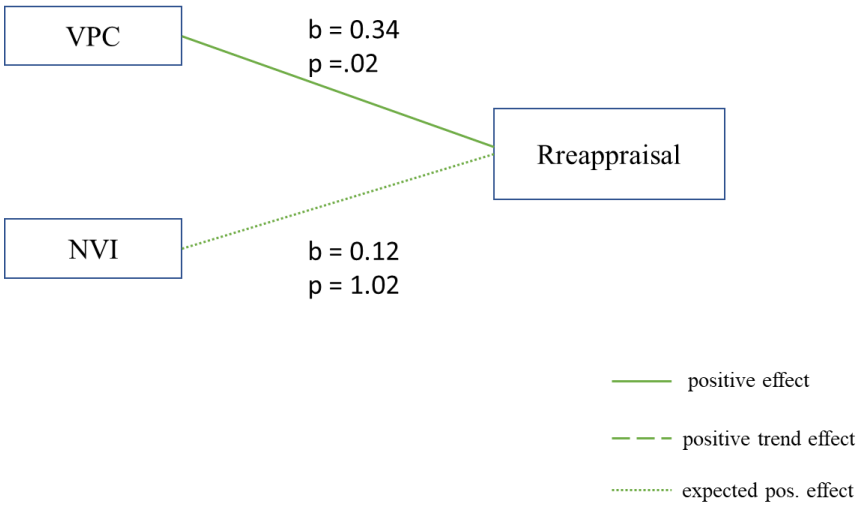


Figure 11:Multiple Regression of Reappraisal at T1 on VPC and NVI , corr. R^2 = .13, p < .001

Effects of VPC and NVI on emotional improvement and reappraisal at T2

H3 and H4 predicted that both independent variables would show similar effects as predicted in H1 and H2 two weeks after the first data collection (T2). However, VPC and NVI did not explain a significant portion of the variance in the outcome variables (for emotional improvement: R^2= 0.03, corrected R^2 = 0.00, p = .358; for reappraisal: R^2 = .04 corrected R^2 = .02, p = .191). By controlling for the other variable receiving greater VPC from a partner was not significantly associated with greater emotional improvement (b = 0.04 , t(74) = 0.27 , p = .789, 95% CI [-0.28, 0.37]). The same was true for NVI. Receiving greater NVI from their partner did not report significantly more emotional improvement (b = 0.11 , t(74) = 0.92, p = .363, 95% CI [-0.13, 0.34]) two weeks after initial data collection.

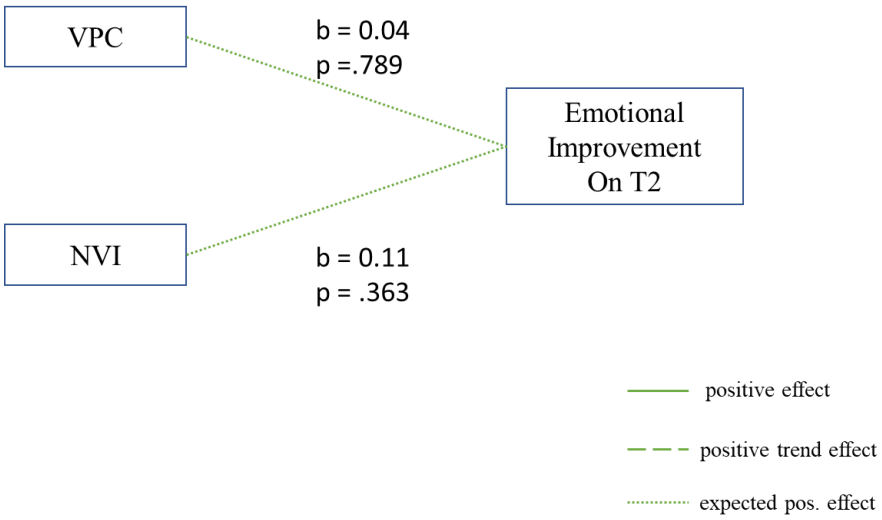


Figure 12: Multiple Regression of Emotional Improvement at T2 on VPC and NVI, corr. R^2 = .00, p = .358

For reappraisal we could also not find significant results for the second data collection. Receiving greater VPC from a partner was not significantly associated with greater reappraisal (*b* = -0.02, *t*(74) =-0.11 , *p* = .911, 95% CI [-0.36, 0.32]). Besides, receiving greater NVI from their partner did lead to significantly more reappraisal (*b* = 0.18 , *t*(74) = 1.48 , *p* =.143, 95% CI [-0.06, 0.43]) two weeks after initial data collection.

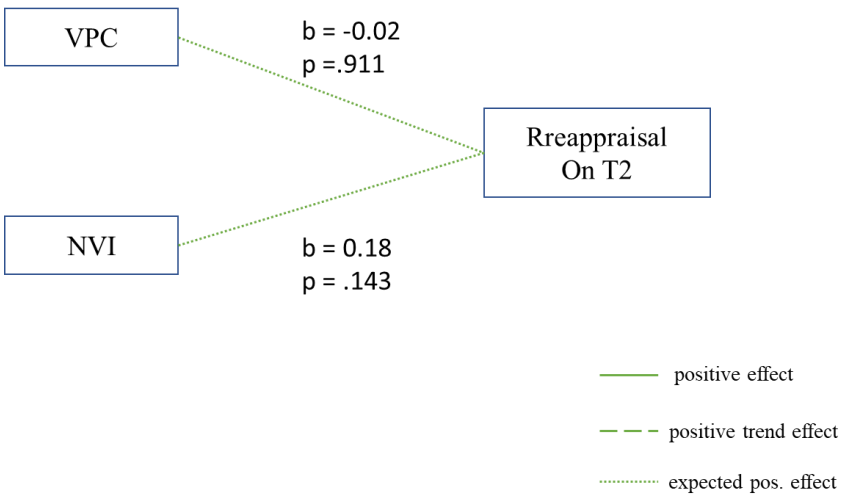


Figure 13: Multiple Regression of Reappraisal at T2 on VPC and NVI, corr. R^2 = .02, p = .191

Nevertheless, there was a correlation between emotional improvement on T1 and T2 ($r(75) = .334$, $p = .003$) and between reappraisal on T1 and T2 as well ($r(75) = .535$, $p < .001$).

To check if the outliers had an influence on the results I included the 7 previously excluded people (see methods) and calculated the multiple regression again. Including the outliers made a difference for H2 and H3. When the outliers were included, VPC and NVI did not account for a significant portion of the variance in emotional improvement in T2, but now showed a trend-level effect ($R^2 = .068$, corrected $R^2 = .045$, $F(2,80) = 2.911$, $p = .06$). Nevertheless, VPC and NVI both accounted for a significant portion of the variance in reappraisal at T2 ($R^2 = .085$, adjusted $R^2 = .062$, $F(2,80) = 3.705$, $p = .029$) (see Figure 14). I did the same for H1 and H2, but it has had no influence on the results.

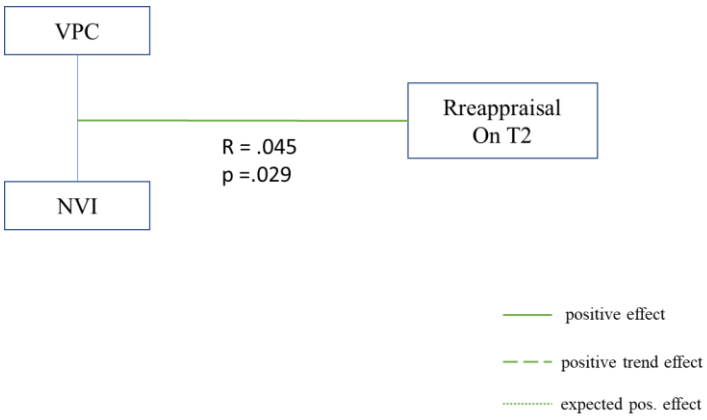


Figure 14:Multiple Regression of Reappraisal on T2 on VPC and NVI (Outliers included) , corr. $R^2 = .029$, $p = .045$

Effects of VPC and NVI on the change of emotional improvement

H5 predicted that support seekers who perceived greater VPC from their partner reported a greater change in (a) emotional improvement, and (b) reappraisal over the two-week period. H6 predicted that support seekers who perceive greater NVI from their partner report a greater change in (a) emotional improvement and (b) reappraisal over the two-week period. I first regressed the change in emotional improvement onto

VPC and NVI. VPC and NVI accounted for a significant portion of the variance in the change of emotional improvement (R^2 = .16, corrected R^2 = .14, $F(2,74) = 7.18$, p = .001) (see Figure 15). Again, only VPC was a significant predictor of emotional improvement when controlled for NVI (b = -0.53, $t(74) = -2.93$, p =.005, 95% CI [-0.89, -0.17]) while NVI was no significant predictor when controlled for VPC (b = 0.01, $t(74) = 0.04$, p = .970, 95% CI [-0.25, 0.26]).

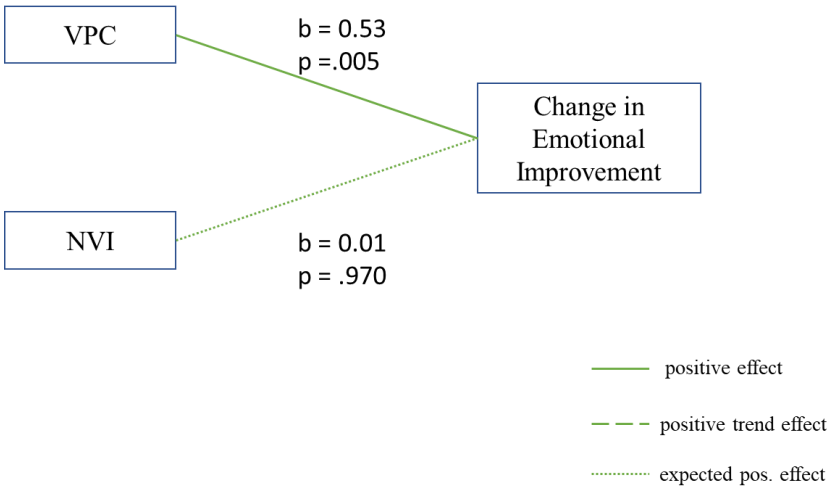


Figure 15: Multiple Regression of Change in Emotional Improvement on VPC and NVI, corr. R^2 = .14, p = .001

In order to explore this connection more closely, I examined the participants who reported a positive change in emotional improvement and the participants who reported a negative change in two separate groups. For support seekers with a positive change, VPC and NVI did not account for a change of emotional improvement (R^2= 0.06, corrected R^2 = 0.04, p = .092) (See Figure 16). Receiving greater VPC from a partner was not significantly associated with a positive change in emotional improvement (b = -0.15 , $t(74) = -1.42$, p = .161, 95% CI [-0.37, 0.06]). Besides, receiving greater NVI from a partner was not significantly associated with a positive change in emotional improvement as well (b = -0.31, $t(74) = -0.40$, p =.689, 95% CI [-0.18, 0.12]).

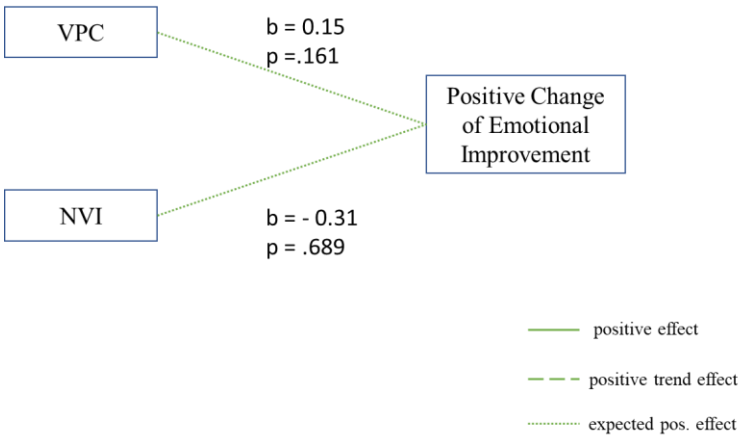


Figure 16: Multiple Regression of Change in Emotional Improvement on VPC and NVI, corr. R^2 = .04, p = .092

However, VPC and NVI accounted for a significant portion of the variance in emotional improvement for those who reported lower levels of emotional improvement at the second point of data collection than at the first point (R^2 = .19, corrected R^2 = .17, $F(2,74) = 8.53$, $p < .001$) (see Figure 17). Controlled for the other predictor, only VPC was a significant unique predictor for the negative change in emotional improvement (b = 0.38, $t(74) = 3.44$, $p < .001$, 95% CI [0.16, 0.60]) while NVI showed no significant effect (b = -0.04, $t(74) = -0.45$, p = .651, 95% CI [-0.19, 0.12]). Note that the change values were coded as absolute values, so a positive effect indicates higher negative values. Thus, the effect of VPC on the change in emotional improvement was driven by a rather decline in emotional improvement for the participants who reported higher levels of emotional improvement at T1.

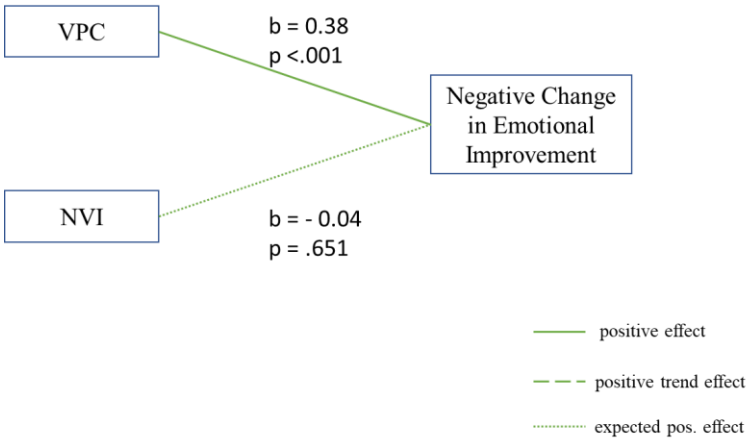


Figure 17: Multiple Regression of Negative Change in Emotional Improvement on VPC and NVI, corr. R^2 = .17, p < .001. Changes were absolute values, a positive effect thus implies a higher negative change.

Effects of VPC and NVI on the Change of Reappraisal

The model analyzing the impact of NVI and VPC on the change of reappraisal showed that the two predictors accounted for a significant portion of the variance. For reappraisal, NVI and VPC could explain 9.6% of the variance (corrected R^2 = .07, $F(2,74) = 3.92$, $p = .024$) (see Figure 18). VPC was a significant unique predictor of the change in reappraisal (b = -0.45, $t(74)$ = -2.70, p = .009, 95% CI [-0.77, -0.12]), while NVI was not (b = 0.14, $t(74)$ = 1.16, p = .250, 95% CI [-0.10, 0.37]).

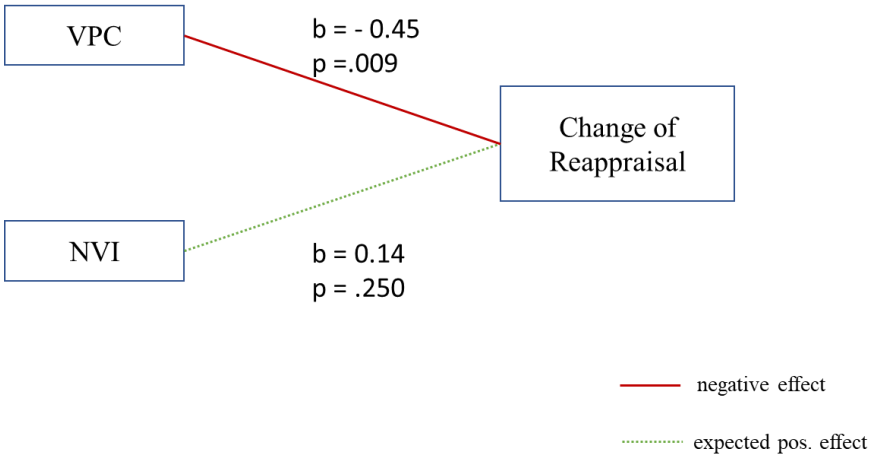


Figure 18: Multiple Regression of Change of Reappraisal on VPC and NVI, corr. R^2 = .07, p = .024

Similar to the model above, I examined the participants who reported a positive and the participants who reported a negative change in reappraisal in two separate

groups. When looked only at support seekers who reported a positive change in reappraisal, VPC and NVI accounted for a significant portion of the variance of the positive change of reappraisal (R^2 = 0.09, corrected R^2 = 0.06, p = .036) (see Figure 19). When controlled for NVI, higher levels of VPC from a partner were significantly associated with a lower positive change in reappraisal (b = -.25, t(74) = -2.56 , p = .012, 95% CI [-0.44, -0.06]). Receiving greater NVI from a partner was not significantly associated with a positive change in reappraisal when controlled for VPC (b = 0.08, t(74) = 1.15, p = .253, 95% CI [-0.06, 0.22]).

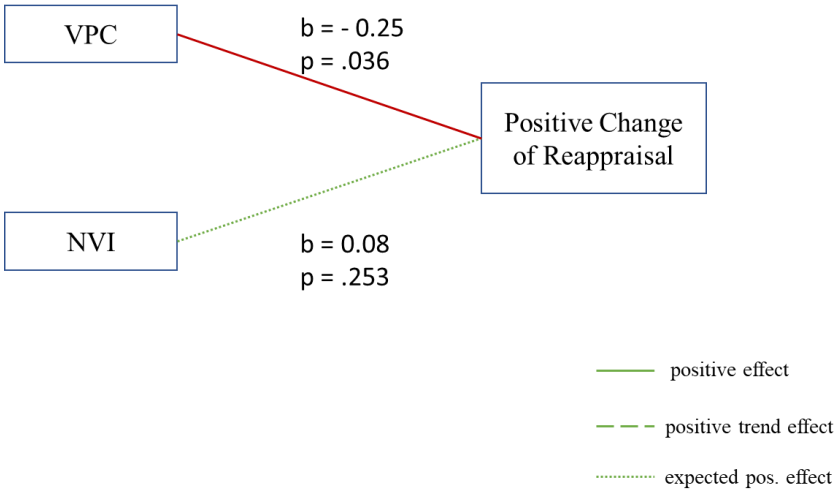


Figure 19: Multiple Regression of Positive Change of Reappraisal on VPC and NVI, corr. R^2 = .06, p = .036

For the individuals who reported a negative change in reappraisal, VPC and NVI did not account for a significant portion of the variance (R^2 = .06, corrected R^2 = .03, F(2,74) = 2.16, p =.122) (see Figure 20). Controlled for NVI, VPC was a scarcely non-significant predictor for the negative change in reappraisal (b = 0.20, t(74) = 1.99, p =.051, 95% CI [-0.00, 0.4]). NVI showed no significant effect (b = -0.57, t(74) = -0.803, p = .425, 95% CI [-0.20, 0.09]).

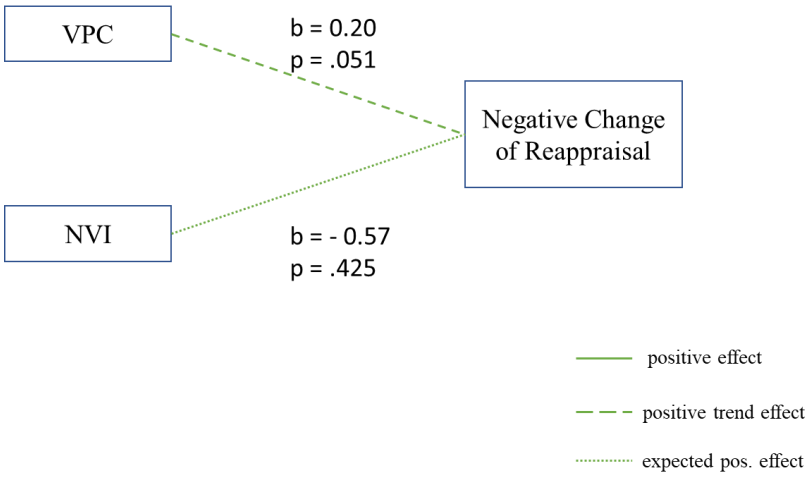


Figure 20: Multiple Regression of Negative Change of Reappraisal on VPC and NVI, corr. R^2 = .030, p = .122. Changes were absolute values, a positive effect thus implies a higher negative change.

For reappraisal, the overall effect of VPC on the change between T1 and T2 was more driven by a smaller improvement of participants with high levels of VPC at T1. In the group with a decline in reappraisal, there was an almost significant effect towards more negative change with higher levels of VPC, as seen before for emotional improvement.

Discussion

The goal of this study was to examine the effect of verbal person-centeredness (VPC) and Non-Verbal-Immediacy (NVI) on emotional improvement, and reappraisal at the time of data collection and two weeks later. The focus was on the extent to which the values of reappraisal at T1 and T2 and the values of emotional improvement at T1 and T2 are related and predicted by VPC and NVI. Besides evaluating the effects immediately after the conversation, I wanted to test whether there are effects of VPC and NVI that only become apparent later. With the results we were able to extend on the theory of conversationally induced reappraisal (Burleson & Goldsmith, 1998) and its first empirical test by Jones & Wirtz (2006). Although the results for H1 and H2 were slightly different from those of Jones and Wirtz (2006), they are pointing in the same direction. Jones and Wirtz (2006) found that VPC and NVI directly predicted emotional improvement. Besides they found, that verbalizations of positive emotion words in conjunction with reappraisals had a positive impact on emotional improvement. This means that a person who experienced higher levels of VPC and NVI was more likely to feel better. When the support provider used more positive emotion words reappraisal was more likely to occur. Reappraisal then lead to more emotional improvement. I expected that support seekers who perceive greater VPC from their partner report more (a) emotional improvement, and (b) reappraisal at the time of initial data collection. Besides I expected that support seekers who perceive greater NVI from their partner report more (a) emotional improvement, and (b) reappraisal at the time of initial data collection. I indeed found that both, NVI and VPC were correlated with emotional improvement and reappraisal. However, opposed to the results of Jones & Wirtz, (2006) the results from the multiple regression here revealed

that only VPC was a unique predictor for emotional improvement and reappraisal at T1. NVI had no impact over the proportion already explained by VPC.

There could be several explanation for those differences. In contrast to Jones and Wirtz (2006), in this study there was no conversation between strangers but between partners. The result that only VPC was a unique predictor of reappraisal and emotional improvement could be a hint that conversations between partners have other effects on our mindset than conversations between strangers. Jones and Wirtz (2006) found that higher levels of VPC and NVI go along with greater liking of a support provider. Greater liking of the support provider on the other hand goes along with an increase in attention and that the advice is more likely to be accepted (Petty & Cacioppo, 1986). When we talk to strangers, we pay more attention to body language to find out if he/she could be a danger to us. When we see that he/she is friendly, it helps us change our mindset beyond what the other person says. With our partner, we already know how he/she relates to us, so NVI will no longer have any additional influence. As we are usually more concerned about what our partner says, we may think (consciously or unconsciously) more about what is said in a conversation with our partner than in one with a stranger, so that a reappraisal of the situation is made easier after these conversations. Besides, it is reasonable to assume that verbal behavior is more salient than non-verbal behavior in relationships and can therefore be assessed more accurately. Taken together, the results can be a hint that VPC and NVI might have different effects depending on our relationship to the support provider.

High & Solomon, (2016) found that different immediate evaluations of VPC can predict outcomes of reappraisal over time. Opposed to High and Solomon (2016) I could not find this effect. Based on this data set, I could not find that VPC and NVI could explain a significant proportion of the outcome in emotional improvement and

reappraisal at T2 when I excluded all participants who fall out of the range of three standard deviations above or below the mean of one of the variables. Only when I included those outliers, the multiple regression became positive. The treatment of outliers is debated. The exclusion of outliers should prevent that the results are driven by extreme cases. However, it is not easy to say if the effect is nevertheless meaningful. Future analyses and studies could investigate why some people seem to be effect much more than others. Nevertheless, this indicates that there might be also other factors affecting emotional improvement and reappraisal. For example, as discussed before, the type of relationship we have with the support provider. It is crucial who stands in front of us and what relationship we have to this person and not only how this person communicates. This could also change the duration of the effects: When we interact with our partner, there are constantly new topics, problems and discussions. The impact of one single discussion can easily fade into obscurity and the ratings at T2 might be influenced by other events happened in between. When we talk to a stranger, it is easier to recall the exact conversation since it does not interfere with any other conversation with the same person. When we talk with our partner, recent conversations might interfere with our memory of what happened two weeks before. Taken together, the results indicate that outcomes of conversations might differ in the long term based on who stands in front of us.

I was also interest in the extent to which VPC and NVI predict the change of emotional improvement and reappraisal from T1 to T2. In the beginning, I proposed the hypothesis that the values of reappraisal and emotional improvement increase even further through further cognitive processing. To examine these effects more closely, I analyzed the effects of VPC and NVI on the change of reappraisal and emotional improvement for all participants together and then separately for those whose values

increased and for those whose values decreased. Firstly, VPC and NVI explained a significant proportion of the variance in the change of emotional improvement between T1 and T2. Only VPC was a significant unique and positive predictor: Support seekers reporting higher levels of VPC where more likely to show a greater change between T1 and T2. Contrary to my hypotheses, higher levels of VPC and NVI did not significantly predict positive change in emotional improvement from T1 to T2. Additionally, I found that VPC and NVI accounted for a significant proportion of the variance in emotional improvement for those who reported lower levels at T2 than at T1. Only VPC was a significant positive predictor of this negative change, indicating that support seekers higher in VPC tended to show a higher decrease in emotional improvement between T1 and T2 when controlling for NVI. This might be due to the fact that participants with higher levels of VPC showed higher levels of emotional improvement at T1 and might tend to go back to a lower level of emotional improvement after two weeks (regression to the mean). Reasons for this could be the previous discussed interference with other discussions or that the memory faded into obscurity.

It is also possible that VPC exerts its effect in the beginning and that its effect decreased over time, probably faster than two weeks. However, the correlation between emotional improvement at T1 and T2 shows that the effect of the intervention does not vanish completely even though there was no significant result in the regression between VPC, NVI and emotional improvement at T2, but only at T1. Thus, the power of the test might not be sufficient to detect a possible and probably smaller effect at T2.

The results show that higher levels of VPC from a partner were significantly associated with a lower change in reappraisal. This means that persons who said that their partner showed a lot of VPC showed less change in reappraisal between T1 and T2. For those support seekers who reported a positive change in reappraisal, those who

reported higher levels of VPC had a less positive change. This could indicate that the data for reappraisal could be influenced by a ceiling effect. A ceiling effect occurs, when the test persons are already close to the maximum at the beginning and therefore can only maintain the maximum but not improve it. Due to the high average values one can assume that most were already so high at T1 that a higher evaluation at T2 was no longer possible for many participants. Because of this, those whose values stayed high and properly even increased could not compensate for those whose values were lowering a bit. For the support seekers who reported a negative change in reappraisal, VPC and NVI did not account for a significant proportion of the variance. This indicates that VPC has long-term results, but that it has the most impact immediately and might not improve through cognitive processing.

Limitations

Overall, the values for VPC and NVI were high. The expressions for high levels should significantly deviate from what most people use in a typical interaction. According to Burleson (1980) comforting messages high in VPC explicitly acknowledge, elaborate, and legitimize the other's feelings and perspectives. The support provider should pay close attention on the emotions expressed by participants and answer to them by expressing a huge amount of empathy.

It might be that, despite the specific questions, the answers of the test persons are influenced by different answer tendencies. In general, there are numerous papers on how and why external and self-assessment can differ from each other (Bogner & Landrock, 2015; H.-P. Krüger, 1980; Mummendey & Grau, 2014). Bogner and Landrock discuss various response trends in standardized surveys that can lead to bias. Following their descriptions, the results of this study may have been biased by social

desirability (the tendency of respondents to give a predominantly positive description of their partners). However, there is a very strong correlation between self-assessment and external assessment. Thus, it seems likely that the effect of social desirability has an effect on both scales or that other effects have influenced the results as well.

In addition to social desirability, for example, participants may also tend to rate in general positive rather than negative. The results showed that all values tended to be evaluated at the upper end of the scales. This tendency towards very positive results is also called the tendency towards mildness (Hui & Triandis, 1985). People tend to evaluate positively rather than negatively in order not to hurt others.

Furthermore, it is also possible that lack of knowledge has contributed to the results. It is possible that the partners lacked a clear understanding of the terms VPC and NVI, even though the value was created through questions. This could have resulted from the fact that the participants, especially in the context of the first evaluation, lacked a standard norm. Such a standard could be a norm person as proposed by Krüger (1980) - for this study, for example, a video of a person showing an average value of VPC and NVI.

In addition to the tendency towards positive values, I also observed a high correlation between the various values. This suggests that the so-called halo effect could have an even greater influence on the results than the tendency towards mildness. The effect was named by Thorndike (1920) and describes the tendency to assign further characteristics to a person on the basis of single characteristics, although there is no evidence for these attributions. Distinctive characteristics such as attractiveness, closeness or eloquence create a positive or negative impression that influences the further perception of the person (Thorndike, 1920). Thus a person, only because he appears particularly attractive as a partner, could also be considered to have particularly

high VPC and NVI values. When talking to one' s partner (compared to a stranger) one already has a norm, especially in body language. Maybe one does not evaluate VPC and NVI exactly on the basis of this one event. With a stranger, however, one has no other interfering data.

In addition to these response tendencies, however, a more general problem could also have influenced the results. The theory of the individual levels described at the beginning of this paper makes it clear that VPC and NVI are not perceived separately in normal everyday life. While we pay a lot of attention to language in everyday life, very few people pay attention to the body language of their interacting partners. If the participants never thought about their partners body language during the conversation it is even more likely, that their memory could have been biased by the Halo Effect when they remember it afterwards.

Future directions

In order to test whether further conversations with the partner interfere with the conversation, another study could build upon this study. Instead of couples one could invite strangers again. In one group, the participants would then be invited again more frequently during the two weeks and allowed to talk, while the others would not talk again. If my assumption is correct, the second group would have to be similar to Jones & Wirtz, 2006, while the group in which the strangers would communicate again would show results similar to this study.

Another study could also test how long the effects are lasting. It seems likely that the observed effects were already reduced after two weeks. To test how long the effects last, a smaller interval could be chosen. For example, a first survey could be conducted after three days or one week.

References

Andersen, P. A., & Andersen, J. F. (2005). Measurements of perceived nonverbal immediacy. *The Sourcebook of Nonverbal Measures: Going beyond Words*, 113–126.

Applegate, J. L., & Delia, J. G. (1980). Person-centered speech, psychological development, and the contexts of language usage. *The Social and Psychological Contexts of Language*, 245–282.

Berdahl, J. L., & Martorana, P. (2006). Effects of power on emotion and expression during a controversial group discussion. *European Journal of Social Psychology*, *36*(4), 497–509. https://doi.org/10.1002/ejsp.354

Bodie, G. D., Burleson, B. R., & Jones, S. M. (2012). Explaining the relationships among supportive message quality, evaluations, and outcomes: A dual-process approach. *Communication Monographs*, *79*(1), 1–22.

Buller, D. B., & Burgoon, J. K. (1996). Interpersonal deception theory. *Communication Theory*, *6*(3), 203–242.

Burleson, B. R. (1982). The development of comforting communication skills in childhood and adolescence. *Child Development*, 1578–1588.

Burleson, B. R., & Goldsmith, D. J. (1996). How the comforting process works: Alleviating emotional distress through conversationally induced reappraisals. In *Handbook of communication and emotion* (pp. 245–280). Elsevier.

Dolcos, F., LaBar, K. S., & Cabeza, R. (2004). Interaction between the Amygdala and the Medial Temporal Lobe Memory System Predicts Better Memory for Emotional Events. *Neuron*, *42*(5), 855–863. https://doi.org/10.1016/S0896-6273(04)00289-2

Folkman, S., Lazarus, R. S., Dunkel-Schetter, C., DeLongis, A., & Gruen, R. J. (1986). Dynamics of a stressful encounter: Cognitive appraisal, coping, and encounter outcomes. *Journal of Personality and Social Psychology*, *50*(5), 992.

High, A. C., & Dillard, J. P. (2012). A review and meta-analysis of person-centered messages and social support outcomes. *Communication Studies*, *63*(1), 99–118.

High, A. C., & Solomon, D. H. (2016). Explaining the Durable Effects of Verbal Person-Centered Supportive Communication: Indirect Effects or Invisible Support?: Durable Effects of VPC Support. *Human Communication Research*, *42*(2), 200–220. https://doi.org/10.1111/hcre.12077

Jones, S. M., & Guerrero, L. K. (2001). The effects of nonverbal immediacy and verbal person centeredness in the emotional support process. *Human Communication Research*, *27*(4), 567–596.

Jones, S. M., & Wirtz, J. G. (2006). How does the comforting process work? An empirical test of an appraisal-based model of comforting. *Human Communication Research*, *32*(3), 217–243.

Kanouse, D. E., Hanson, L., Jones, E. E., Kelley, H., Nisbett, R., Valins, S., & Weiner, B. (1972). Attribution: Perceiving the causes of behavior. *EE Jones, DE, Kanouse, HH, Kelley, R E Nisbett, S Valins, & B Weiner Eds. Morristown, NJ: General Learning*, 47–62.

Lazarus, R. S. (1991). Progress on a cognitive-motivational-relational theory of emotion. *American Psychologist*, *46*(8), 819.

Petty, R. E., & Cacioppo, J. T. (1986). The elaboration likelihood model of persuasion. In *Communication and persuasion* (pp. 1–24). Springer.

Priem, J. (2007). The Effects of Reappraisal and Distraction on Cortisol Levels Among Students in Public Speaking Classes. *Conference Papers -- International*

Communication Association, 1–1. Retrieved from http://go.libproxy.wakehealth.edu/login?url=http://search.ebscohost.com/login.aspx?direct=true&db=ufh&AN=26951003&site=ehost-live

Ross, L., Rodin, J., & Zimbardo, P. G. (1969). Toward an attribution therapy: The reduction of fear through induced cognitive-emotional misattribution. *Journal of Personality and Social Psychology*, *12*(4), 279.

Smith, C. A. (1989). Dimensions of appraisal and physiological response in emotion. *Journal of Personality and Social Psychology*, *56*(3), 339.

Smith, C. A., & Pope, L. K. (1992). *Appraisal and emotion: The interactional contributions of dispositional and situational factors.*

Suri, G., Whittaker, K., & Gross, J. J. (2015). Launching reappraisal: It's less common than you might think. *Emotion*, *15*(1), 73.

Wegner, D. M., Schneider, D. J., Carter, S. R., & White, T. L. (1987). Paradoxical effects of thought suppression. *Journal of Personality and Social Psychology*, *53*(1), 5.

Curriculum Vitae

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EDUCATION

Wake Forest University School of Business — Winston-Salem, NC
Master of Science in Management — *June 2019 – Present*

Wake Forest University — Winston-Salem, NC
Master of Arts in Liberal Studies — *August 2018 – December 2019*

Universität zu Lübeck — Lübeck, Germany
Bachelor of Science in Psychology — *October 2014 – April 2018*

PROFESSIONAL EXPERIENCE

SysTelios Psychiatric Clinic — Siedelsbrunn, Germany
Intern — *April 2018 – June 2018*
- Assisted in various therapy settings
- Conducted baseline examination of patients and implemented counseling interviews

University of Lübeck — Lübeck, Germany
Student Assistant, Social Neuroscience Lab — *October 2017 – April 2018*
- Worked as part of a group that prepared and implemented a lab experiment to subjectively perceived control, self-efficacy and pride

University of Lübeck — Lübeck, Germany
Intern, Institute of Social Medicine and Epidemiology — *January 2016 – September 2018*
- Researched on Health-promoting factors in the freshman year of medical students
- Analyzed Data about this factors with the statistical software SPSS

University of Lübeck — Lübeck, Germany
Coach/Instructor, Lübeck's University Sports — *October 2016 – August 2018*
- Coached the University's running group with 80+ members.
- Instructed a group for progressive muscle relaxation and thus taught 25 people how to find better work life balance.

LEADERSHIP AND COMMUNITY INVOLVEMENT

German Athletics Association — Darmstadt, Germany
Youth ambassador for sport psychology — *October 2017– present*
- Teamed with college students to find methods to teach youth athletes in sport psychology

Medical House Kowsky — Neumünster, Germany
Coach — *June 2012 – August 2018*
- Instructed a running group for beginners to help people finding the joy in moving outside
- Frequently instructed 50+ athletes simultaneous

NCAA Devision I Athlete — Winston-Salem, US
Athlete/ Team Captain 2019 — *August 2018 – May 2020*
- Trained and competed up to 20h a week and earned multiple titles including 3rd place at German Championships
- Strengthened leadership abilities as Cross Country Team Captain

ADDITIONAL PROFICIENCES AND ACHIEVEMENTS

Technical: Proficient in the statistical software Excel and SPSS
Language: Fluent in German and English, basic knowledge in French, Latin and Spanish