

**Navigating One's Social Relationships to Thrive: Uncovering and Understanding the  
Divergent Effects of Supportive Social Relationships**

by

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## **DEDICATION**

To my parents, for their social support.

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## ABSTRACT

Decades of empirical work indicate that supportive relationships play a vital role in human flourishing. For instance, people who have more supportive relationships have better mental and physical health, higher levels of subjective well-being, and lower rates of morbidity and mortality (e.g., Cohen & Wills, 1985; House, Landis, & Umberson, 1988; Thoits, 1995). However, despite a plethora of compelling evidence, *how* supportive relationships benefit individuals is not well understood (cf. Cohen & Janicki-Deverts, 2009; Feeney & Collins, 2015; Thoits, 2011). Moreover, a growing number of studies has begun to show that at times receiving support can lead to negative outcomes (e.g., Bolger, Zuckerman, & Kessler, 2000; Bolger & Amarel, 2007). Thus, a better understanding of the psychological conditions under which supportive relationships influence individuals is necessary.

This three-paper dissertation investigates the mechanisms by which supportive relationships and interactions promote thriving. By thriving, I refer to an individual's capacity to cope with stress or adversity, as well as learning, growing, and working to achieve goals. Chapter 1 uses experimental and nationally representative cross-cultural survey methods to demonstrate that supportive relationships promote personal growth. In addition, I show one mechanism—feelings of self-confidence—that helps explain the link between supportive relationships and personal growth. Chapter 2 investigates a novel hypothesis on the effects of how people think about their social support on their goal-pursuit. Four experiments demonstrate that participants who were led to think abstractly (vs. concretely) about their social support



showed higher intent to pursue their goal and worked harder toward their goal. Chapter 3 examines one critical mechanism by which support-providers enable support-recipients to cope with their distressing personal events. Two laboratory experiments demonstrate that support-recipients who interacted with support-providers who facilitated them to reconstrue (vs. recount) their negative experience felt less negative affect and reported a higher sense of closure. Moreover, I show that these findings occur regardless of the support-recipients' preference to receive a certain type of support. Collectively, the dissertation delineates different processes through which supportive relationships and interactions promote personal thriving, and also the conditions under which supportive relationships can impede thriving.

## Chapter 1

### **I-through-We: How Supportive Social Relationships Facilitate Personal Growth**

#### Abstract

Personal growth is usually considered an outcome of *intrapersonal* processes—personal resources residing within the person. Comparatively, little research has examined the *interpersonal* processes underlying personal growth. We investigated how one interpersonal factor—people’s relationships with others—influences personal growth. Study 1 showed that brief reminders of a supportive (vs. non-supportive) other led people to choose a job that promoted personal growth over one that offered a higher salary. Moreover, feelings of self-confidence from thinking about a supportive (vs. non-supportive) other mediated personal growth. Extending these results, Studies 2 and 3 demonstrated that people’s perceptions of how supportive their close others are positively predicted personal growth in two distinct cultures with varying emphasis on the individual relative to the collective. These findings suggest that the link between supportive relationships and personal growth may reflect a universal process and highlight the interactive relationship between connecting with others and striving individually.

Conventional wisdom suggests that personal growth can be achieved by changing the “self”—for example, by being more motivated, having more willpower, or improving goal-management skills. Many self-help books exhort individuals to “change” themselves through hard work, dedication, and motivation. Demands are high for seminars conducted by life coaches who instill in their students the idea that success comes from “within” (Robbins, 1992). Likewise, much of the psychological research in the past decades has approached personal growth as an outcome of *intrapersonal* processes. For instance, research on self-regulation and motivation, and many “self” theories emphasize the “individual” in individual growth and striving (e.g., Baumeister, Schmeichel, & Vohs, 2007; Deci & Ryan, 1985). It is argued that people are likely to achieve their goals if they are motivated, have sufficient skills or self-regulatory resources, or can delay gratification. These studies have led to important findings on the intrapersonal processes involved in personal growth and striving.

However, although personal growth and success targets individuals, a singular focus on the individual can lead to an oversimplified story of personal growth. It could be said, for example, that “Josh received an A on his exam because he was extremely motivated” or “Mike failed his exam because he lacked willpower.” Attributing success or failure to a person’s internal qualities without taking into account the contexts in which the person pursues his or her goals (e.g., Josh had a better teacher than Mike) can paint an incomplete or misleading picture about the person and the behavior; it explains effort solely as a function of a person’s internal qualities and intrapersonal processes, which is unlikely to be sufficient in helping us understand something as important and dynamic as personal growth.

Moreover, people do not live in a vacuum. Much of learning and striving towards goals is closely tied to a person’s social environment (e.g., receiving help and advice from others, using

others to motivate the self). Thus, more research examining the *interpersonal* factors that enable people to grow (e.g., mentally, emotionally) is needed (cf. Feeney & Collins, 2015; Fitzsimons, Finkel, & vanDellen, 2015). The present research investigates how one interpersonal factor—people’s relationships with others—influences personal growth.

*I-through-We Perspective: Supportive relationships foster personal growth*

Imagine Julie, a graduate student aspiring to become a successful researcher. To grow and develop as a successful researcher, Julie will likely need a great deal of career advice and guidance from her mentors. Julie may also need emotional support from friends and family who can comfort her and validate her self-worth in the wake of setbacks, such as struggling with classes or rejected manuscripts. Julie’s case illustrates a prominent theme in personal growth: a person’s growth depends not only on individual capabilities but on his or her relational network. Throughout this paper, we refer to this idea as the *I-through-We Perspective*. It signifies that both the individual and the individual’s social connections matter in personal growth. There is no personal growth without the individual, but growth is embedded in a social context that facilitates a person’s relevant attitudes and capacities.

Decades of research have shown that people benefit from positive social connections (e.g., Cohen & Wills, 1985; House, Landis, & Umberson, 1988; Trivers, 1971). For instance, the provision of financial aid, material resources, or services to those in need allows them to cope with problems in life (Cohen, Gottlieb, & Underwood, 2000). Having many social ties allows people to have more access to novel ideas and opportunities because social networks facilitate the distribution and sharing of information (Granovetter, 1973; Ruef, 2002). Moreover, recent studies have shown that social connections can positively influence people’s ability to process available information (Ybarra et al., 2008; Ybarra, Winkielman, Yeh, Burnstein, & Kavanagh,

2011). In addition, positive social connections promote mental and physical health (Gladstone, Parker, Malhi, & Wilhelm, 2007; House et al., 1988; Stroebe, Stroebe, Abakoumkin, & Schut, 1996; Uchino, 2006). Finally, supportive relationships provide emotional benefits such as feelings of security (e.g., Ainsworth, 1989; Ainsworth & Bowlby, 1991; Crockenberg, 1981; Hazan & Shaver, 1990; Ybarra, Lee, & Gonzalez, 2012) and help alleviate anxiety and reassure people in uncertain situations (Gump & Kulik, 1997; Haslam, Jetten, O'Brien, & Jacobs, 2004). Thus, people with more supportive relationships should be more likely to persevere and strive toward their goals more confidently because they can depend on their close others for instrumental and emotional support.

Given that personal growth involves exploring one's environment under uncertainty and challenging oneself (Ryff, 1989), we propose that having (or even knowing that one has) supportive others to rely on for instrumental and emotional support should help people strive and pursue goals under uncertainty (Bowlby, 1988; Feeney, 2004, 2007; Feeney & Collins, 2015). Specifically, we predict that supportive relationships (compared to non-supportive ones) should lead to increased feelings of self-confidence that enable individuals to grow. Without such relationships, the person may have little or no basis for security ("I cannot depend on others") or the courage to strive. Further, given the fundamental human motive to build positive social connections (Baumeister & Leary, 1995; Trivers, 1971), we argue that the benefits derived from supportive social connections and their effect on personal growth should show similar patterns in different cultures.

#### *A Possible Link Between Social Factors and Personal Growth*

Some research has considered the link between social factors and personal growth. For example, research on the Michelangelo phenomenon has demonstrated how close partners can

shape and influence each other's ideal self, goal strivings (e.g., Rusbult, Finkel, & Kumashiro, 2009; Righetti, Finkenauer, & Rusbult, 2010; Rusbult, Kumashiro, Stocker, & Wolf, 2005). Similarly, Brunstein and colleagues (1996) showed that people's ability to meet their personal goals (e.g., fitness) depended on the extent to which their romantic partners supported those goals. Some of the few experiments on the topic have found that priming a close other (e.g., mother) can activate goals associated with that person (e.g., academics) and increase motivation and performance, as long as those goals were endorsed by the primed person (Fitzsimons & Bargh, 2003; Shah, 2003). An interpretation of the findings from these studies is that people are motivated to achieve goals their close others support and endorse, in part to make them proud (Fitzsimons & Bargh, 2003).

Other studies have demonstrated that secure attachment styles are positively associated with exploratory behaviors such as seeking novel information or engaging in a novel activity (Aspelmeier & Kerns, 2003; Feeney & Thrush, 2010; Mikulincer, 1997). One explanation is that supportive others provide people with a "secure base" from which they can explore their environment and a "safe haven" in which they can retreat to receive care and support when stressors arise (Bowlby, 1988; Feeney, 2004, 2007; Feeney & Collins, 2015; Hazan & Shaver, 1990).

The above research is suggestive of a relation between indicators of supportive relationships (e.g., as inferred from attachment style) and personal growth, and some experimental work indicates that reminders of others presumed to be supportive (i.e., one's romantic partner or mother) can affect the pursuit of specific goals, although it is ambiguous as to who is more interested in completing the goal, the individual or the supportive other.

### *The Present Research*

The reviewed studies, although suggestive, raise various issues that need to be addressed. For example, the work on attachment is useful but limited in giving a sense of whether it is the individual's personality style or the nature of their social relationships that predict the positive outcomes. The experimental work is encouraging because it shows that meaningful relationships or persons brought to mind can influence goal pursuit, but it is unclear who is championing the pursued goals. Thus, building on these efforts, Study 1 used an experimental approach to examine how supportive relationships promote personal growth. In addition, because it is unclear how different types of relationships can affect personal growth (Cohen & Janicki-Deverts, 2009; Feeney & Collins, 2015; Thoits, 2011), in Study 1 we also examined potential mechanisms to explain the effect of supportive relationships on personal growth. Finally, we extended the generalizability of the present findings by examining the link between supportive relationships and personal growth using large representative adult samples (Studies 2 & 3).

### Study 1

The goal of Study 1 was to examine the causal effects of supportive relationships on a behavioral indicator of personal growth, which we operationalized as motivation to pursue an important personal goal under uncertainty. Specifically, we wanted to examine experimentally how the proposed benefits of supportive relationships would translate to behavioral intentions. Moreover, we sought to extend previous research on close relationships and goal-pursuit (Brunstein et al., 1996; Fitzsimons & Bargh, 2003; Shah, 2003) by testing for potential mediators that can explain the link between supportive relationships and personal growth. Specifically, people receive emotional, instrumental, and cognitive benefits from supportive relationships (e.g., Cacioppo & Hawkley, 2009; Cohen & Wills, 1985). Reminders of such relationships, by bringing to mind the idea that one has others to rely on, should lead to emotional and mental

benefits such as feelings of security and confidence. Thus, we predicted that thinking about a supportive (vs. non-supportive or neutral) other would lead to increased feelings of self-confidence, which in turn should help them pursue a growth goal that involved uncertainty.

### *Participants*

Two hundred and thirty-one participants (111 females, Mage = 32.07 years) were recruited from Amazon.com's Mechanical Turk. Participants were monetarily compensated for their responses to an online survey.

### *Procedure and materials*

Participants were randomly assigned to one of the three conditions: supportive relationship (N = 75), non-supportive relationship (N = 82), or neutral relationship (N = 74) conditions. Twenty-nine participants who wrote about a relationship not assigned to them were excluded from the analysis, leaving 202 participants (supportive relationship, N = 74; non-supportive relationship, N = 60; neutral relationship, N = 68). Participants were told that the researchers were interested in "how well people can visualize others around them." In the supportive (non-supportive) other condition, participants were to think about "a relationship that is very important to you in which you felt you were (not) close to the other person and you felt comfortable (uncomfortable) depending on the other person. In this relationship you didn't (would) often worry about being abandoned by the other person." Participants then wrote down the initial of that person's name and described their thoughts and feelings regarding the individual. Participants in the control condition wrote about a person whom they "do not know very well (e.g., acquaintance) and to whom they do not have any strong feelings." To dissociate the manipulation from the main judgment task, participants completed a filler task in which they indicated the number of times they engaged in mundane activities in the past week (e.g.,



checking email, driving). For the main judgment task, participants read a hypothetical scenario in which they were to choose between a higher-paying job with high familiarity (Company A) and a lower-paying job that is challenging but more beneficial for their long-term career development (Company B). In this study, we operationalized personal growth as pursuing a challenging job that helps them grow and develop mastery (Company B) over a job that is familiar (Company A). To balance out the appeal of each job, we manipulated the level of uncertainty associated with each choice (i.e. Company A offered more certainty through higher pay and familiar work).

Participants read:

Imagine that you are looking for a new job. After several interviews, two companies contact you with an offer:

- Company A offers decent pay and you are familiar with the work you will be doing.
- Company B offers a slightly lower salary than Company A and the work you will be doing requires some learning, however the job will help your long-term career development.

Participants indicated which offer they would take. Then they reported their mood on a scale of 1 (negative, sad, upset) to 5 (positive, happy, joyful). After completing demographic questions, participants reported what they thought the study was about and received their compensation.

## Results

We had two goals for this study. First, we wanted to examine the causal effect of supportive relationships on a behavioral indicator of personal growth. Second, we sought to test for potential mediators that could help explain the link between supportive relationships and personal growth. In the supportive other condition, 64.9% of participants selected Company B whereas 40% of those in the non-supportive other condition and 50% of those in the neutral other condition chose Company B,  $\chi^2(2, N = 202) = 8.47, p = .015$  (see Figure 1.1). We examined these effects further using a logistic regression in which we submitted participants' job choice

(coded 0 = *Company A*, 1 = *Company B*) as the dependent variable, with condition (recalled person) as the categorical predictor. Consistent with our prediction, compared with participants in the non-supportive other condition, those in the supportive other condition were more likely to choose Company B (Wald coefficient = 8.06, 95% CI = 1.37-5.60,  $p = .005$ ). Participants in the supportive other condition were marginally more likely to choose Company B compared with those in the neutral other condition, (Wald coefficient = 3.18, 95% CI = .94-3.62,  $p = .074$ ). There was no significant difference in the likelihood of choosing Company B for participants in the non-supportive other and the neutral other condition,  $p = .26$ . Controlling for mood did not alter the results (Wald coefficient = 7.10, 95% CI = .18-.77,  $p = .008$ ), suggesting that the effect was driven by the supportive nature of participants' relationships rather than positive mood.

#### *Potential mediators*

We hypothesized that participants who were reminded of a supportive other (vs. a non-supportive or neutral other) would be more likely to choose a job that offered an opportunity to grow and develop mastery, our operationalization of personal growth. One possible explanation is that thinking about supportive others can reduce uncertainty and make people feel confident, in turn promoting people to pursue their goals (Ainsworth & Bowlby, 1991; Bartholomew & Shaver, 1998; Hazan & Shaver, 1990). To test for possible mediation, two independent coders, blind to experimental conditions and study hypotheses, were trained to rate participants' descriptions of their relationships on potentially relevant themes (i.e., feelings of self-confidence, security/calmness, trust). Interrater reliability ( $r$ ) ranged from .64 to .83, so we averaged the scores, with higher scores indicating higher levels of each variable.

For our mediation analysis, first, the predictor variable, relationship type (coded 1 = supportive, -1 = non-supportive, 0 = neutral), was significantly related to personal growth (Wald

coefficient = 8.06, 95% CI = .18-.73,  $p = .005$ ). Relationship type was also significantly related to the mediator, self-confidence ( $B = -.25$ ,  $t(198) = -4.53$ ,  $p < .0001$ ). Lastly, self-confidence was positively related to personal growth, ( $B = .89$ ,  $Z = 3.09$ ,  $p = .002$ ). Because both the a-path and b-path were significant, we used the bootstrapping method with bias-corrected confidence estimates to conduct the mediation analysis (MacKinnon, Lockwood, & Williams, 2004; Preacher & Hayes, 2004). In this study, the 95% confidence interval of the indirect effect was obtained with 5000 bootstrap resamples (Preacher & Hayes, 2008). Results of the mediation analysis confirmed the mediating role of self-confidence in the relation between supportive relationships and personal growth ( $B = -.23$ ; CI = -.46 to -.08). Moreover, the direct effect of supportive relationships became non-significant ( $B = -.12$ ,  $Z = -.67$ ,  $p = .50$ ) when controlling for self-confidence, thus suggesting mediation. Other potentially relevant themes in the essays (i.e., trust, secure/calm feelings) failed to meet the criteria for mediation.

## Discussion

The results of Study 1 support our hypothesis that supportive relationships serve as a base from which people can explore and grow. Specifically, participants who thought about a supportive (vs. non-supportive) other were more willing to choose a job that promoted personal growth. Further, this effect was mediated by increased feelings of self-confidence for those who thought about a supportive other. We have argued that these findings should occur given that the reminders of a supportive other should lead to emotional benefits such as feelings of security and confidence (e.g., Feeney, 2004; Ybarra et al., 2012). Fortified with such resources, the person should be in a position to strive, to want to grow, and to explore.

Having established a causal link between supportive relationships and personal growth, we next sought to generalize and test our findings using large representative samples.

## Study 2

The main goal of this study was to examine the link between supportive relationships and personal growth using a large nationally representative sample of adults. The large survey data set allowed us to assess the supportive nature of people's relationships with close others and measure personal growth broadly (described below). Given that people receive emotional and cognitive benefits from supportive relationships (e.g., Cacioppo & Hawkley, 2009; Cohen & Wills, 1985), we expected supportive relationships to positively predict personal growth. In our analyses, we included several control variables to assess the unique effects of supportive relationships on personal growth.

## Method

### *Study Population*

The data for Study 2 came from the Survey of Midlife Development in the United States (MIDUS II: Ryff, et al., 2004-2006). The study respondents were healthy English-speaking participants (N = 4963; due to missing responses, the samples in the different analyses ranged from 3801 to 4026). They were from the United States and were first interviewed as part of the National Survey of Midlife Development in the United States (MIDUS) in 1995-1996, and then re-contacted to participate in MIDUS II as a follow-up study (response rates: 75%). The age range for participants was 28-84 years old (M = 55.4). Data consisted of various life topics and assessed a variety of variables including socio-demographic information and a comprehensive array of psychosocial factors and health assessments.

### *Predictor variable: Supportive relationships*

Our predictor variable was participants' ratings of the supportiveness of their close network members (i.e., family and friends). Specifically, participants responded to 8 items (4

items each for family and friends) on a 4-point scale (1 = *not at all*, 4 = *a lot*), with some examples being “How much does your family (do your friends) really care about you?” and “How much can you open up to them if you need to talk about your worries?” This scale was reliable ( $\alpha = .85$ ), so we averaged the items to create a composite *supportive relationships* variable, with higher scores reflecting the availability of more supportive relationships.

*Dependent variable: Personal growth*

Taken from Ryff (1989), the *personal growth* scale consisted of 7 items (1 = *strongly agree*, 7 = *strongly disagree*) dealing with a person’s willingness to develop their potential and grow as a person. Example items included “I think it is important to have new experiences that challenge how you think about yourself and the world” (reverse-coded) and “I am not interested in activities that will expand my horizons.” The scores were averaged to generate an overall personal growth variable, with higher scores indicating more personal growth ( $\alpha = .75$ ).

*Covariates*

We controlled for relevant covariates, including demographic variables. These were age (measured in years), highest level of education (on a continuous scale; 1 = *some grade school*, 12 = *Ph.D., MD, etc.*), gender, current financial situation (0 = *the worst possible financial situation*, 10 = *the best possible financial situation*), and marital status (0 = *currently without a partner*, 1 = *currently with a partner*). Non-binary covariates were entered as linear predictors.

Additionally, we controlled for participants’ physical health because severe health issues or physical impairments can interfere with a person’s ability to achieve personal goals or even live independently. Participants’ physical health was measured in two ways. One measure assessed *the number of visits to the doctor* in the past 12 months (a continuous variable with high scores reflecting more visits). The second measure dealt with *the difficulty with daily activity*,

which assessed how much difficulty participants had performing various daily activities. Using a 4-point scale (1 = *a lot*, 4 = *not at all*), participants indicated how much their health limited their ability to engage in 7 different daily activities (e.g., lifting or carrying groceries, climbing up stairs). These scores were reverse-coded and averaged into one variable, with higher scores reflecting greater difficulty with daily activities ( $\alpha = .94$ ).

Finally, we controlled for participants' *positive* and *negative affect* given the potential influence of mood on our dependent variables. For example, research has shown that positive mood is associated with higher self-efficacy (e.g., Bandura, 1986) and higher motivation for many kinds of tasks (e.g., Isen & Patrick, 1983), whereas chronic negative mood is linked to low self-efficacy (e.g., Maddux, 1995) and a reduced sense of control over one's environment (e.g., Abramson, Seligman, & Teasdale, 1978; Seligman, 1975). Using a 5-point scale (1 = *all of the time*, 5 = *none of the time*), participants indicated how frequently they experienced specific emotions in the past 30 days. Some examples included "in good spirits" and "full of life," "so sad nothing can cheer you up," and "hopeless." The items were reverse-coded and separately averaged into two variables, *positive affect* ( $\alpha = .90$ ) and *negative affect* ( $\alpha = .85$ ), with higher scores reflecting higher levels of each.

## Results and Discussion

To test our hypothesis, we regressed personal growth on the supportive relationships variable including all the covariates mentioned above. Consistent with our hypothesis, the results indicated that the supportive relationships variable was a significant predictor of personal growth,  $\beta = .21, p < .001$ , even after controlling for covariates. Thus, people who report their relationships to be more supportive also showed higher willingness to grow personally. In the

final study, we additionally tested the generalizability of the I-through-We perspective with a distinct sample of participants from Japan.

### Study 3

Most of the available theoretical work and empirical evidence relevant to personal growth has come from studying people in Western societies, which strongly emphasize individual (relative to collective) striving. However, research has shown that people in other parts of the world (e.g., East Asia) tend to have more collectivistic tendencies (e.g., Markus & Kitayama, 1991; Triandis, 1995). Thus, it is unclear whether the I-through-We perspective should generalize in cultures that put more emphasis on the collective. Finding a similar pattern as in Study 2 in a more collectivistic Eastern culture would suggest that the I-through-We perspective captures a potentially universal process in human functioning, helping to further underscore the importance of social relationships in personal growth. Thus, as in Study 2, we tested the hypothesis that supportive relationships will predict personal growth, even in a culture (Japan) that puts less emphasis on individual growth.

### Method

#### *Study population and description*

The data for Study 3 came from the Survey of Midlife Development in Japan (MIDJA: Ryff, Kitayama, Karasawa, Markus, Kawakami, & Coe, 2008), which paralleled the MIDUS II survey (Ryff et al., 2004-2006). The survey data are based on a probability sample of adults from Tokyo, Japan ( $N = 1027$ ; response rate: 56.2%; because of missing responses, the samples in the different analyses ranged from 992 to 1025). Equally divided by gender, the age range of the participants was 30-79 years old ( $M = 54.4$ ). Data consisted of many of the same topics and

measures covered in the MIDUS II data set used in Study 2. For our purposes, the Japanese data set allowed us to test our hypotheses using the same variables tested in Study 2.

*Predictor variable: Supportive relationships*

To measure the supportive nature of participants' relationships, we used 8 items identical to those used in Study 2, creating a composite variable of *supportive relationships*. Higher scores reflect greater amounts of reported social support from family and friends ( $\alpha = .81$ ).

*Dependent Variable: Personal Growth*

We used the same indicators of personal growth ( $\alpha = .74$ ) as used in Study 2.

*Covariates*

The covariates were identical to those in Study 2.

## Results and Discussion

Using the same analytic approach as in Study 2, supportive relationships significantly predicted personal growth,  $\beta = .23$ ,  $p < .001$ , even after controlling for the various covariates. Thus, consistent with Study 2, the more support participants reported being available to them, the higher their personal growth tendencies, even in a culture that puts more emphasis on the collective rather than the individual. These findings suggest that the I-through-We perspective may reflect a basic and potentially universal process.

## General Discussion

In three studies we provided experimental and nationally representative survey results indicating that supportive relationships are positively associated with personal growth. Study 1 demonstrated that briefly reminding people of a supportive other (vs. non-supportive other) promoted personal growth as assessed by the pursuit of a goal under uncertainty. Moreover, Study 1 shed light on potential mechanisms (i.e. self-confidence) underlying the link between



supportive relationships and personal growth. Extending the generality of the I-through-We perspective, Studies 2 and 3 showed that people's judgments of how supportive their close others are positively predicted personal growth in two distinct cultures that vary in their emphasis on the individual relative to the collective.

In general, the findings support the present framework—the I-through-We perspective—that proposes that both the individual and the individual's social connections matter in promoting what is generally considered the domain of the individual—personal growth. In addition to critical intrapersonal factors such as self-regulation, we argue that one's supportive social context—by augmenting one's attitudes and beliefs related to the pursuit of personal goals—plays a critical role in personal growth. We have argued that supportive relationships promote personal growth because they provide people with emotional and instrumental benefits that allow them to confidently pursue their goals. We demonstrated the validity of this argument by 1) manipulating the type of relationships people recalled and 2) measuring the supportive nature of people's relationships, and testing how these factors influenced personal growth.

Our results are consistent with past theoretical perspectives and recent findings in the literature. For instance, Bowlby (1988) proposed that secure attachments can serve as a “secure base” that enables people to explore the world. Similarly, research on social support and close relationships has suggested that people's perception that their close others will be available and responsive to their needs should help buffer against stress and bolster their ability to cope with imposed demands (Cohen & Wills, 1985; Feeney & Thrush, 2010; Hazan & Shaver, 1990; Thoits, 1986; Wethington & Kessler, 1986). Moreover, although the involved mechanisms and generality of goals may be different, our findings are also consistent with research on close others and the pursuit of specific goals endorsed by these close others (Fitzsimons & Bargh,

2003; Fitzsimons & Finkel, 2010; Shah, 2003), helping to further highlight the importance of interpersonal processes underlying personal growth.

Further, the present research makes several new contributions. First, the present findings have begun to lay out some of the potential mediating processes (e.g., self-confidence activated by reminders of a supportive other) responsible for the effect of supportive social connections on personal growth (Study 1). While the various benefits of positive social relationships have long been known, very few studies have examined the causal role of social relationships on individual outcomes, with even fewer addressing *why* and *how* supportive relationships benefit individuals (Cohen & Janicki-Deverts, 2009; Feeney & Collins, 2015; Thoits, 2011). Finally, the present research found support for the I-through-We perspective in two cultural traditions that differ in the extent to which they endorse the individual over the collective. In addition to establishing the generality of the present framework, our findings suggest that the I-through-We perspective may reflect a basic and potentially universal process, although testing the idea in other cultural and social contexts is needed to make this claim more strongly.

#### *Life's Recurring Challenges and the Themes People Live by*

Broadly, our studies speak to the interactive relation between two fundamental themes that recur in people's lives: distinguishing the self from others by fulfilling personal goals, and being a good group member by fulfilling social obligations. Although research has long shown that people are strongly motivated to pursue both of these values (Bakan, 1966; Hogan, 1983; Ybarra et al. 2008), the predominant view often seems to be that the two values conflict with each other.

For instance, Dionne (2012) argues that there exists a tension between the core values of individualism (e.g., liberty, individual opportunity and self-expression) and community (e.g.,

community obligation and civic virtue) in American society. In his book on sociality and evolution, E.O. Wilson (2012) proposes that people are chronically conflicted to look out for themselves or to focus more on others from the ingroup. Similarly, Brewer's theory of optimal distinctiveness (1991) argues that a person's identity is shaped by *attempts to reconcile opposing needs* for assimilation (e.g., social identity) and differentiation from others (e.g., personal identity). Finally, the prevailing wisdom from cultural psychology has been that cultures that tend to be more collectivistic (focus on collective goals and harmony) put relatively less emphasis on promoting individualistic values (focus on individual goals and achievements) and vice versa (e.g., Hofstede, 1980; Hui, 1988; see Kashima, 2001). However, based on our data, we believe that these two fundamental values can be interactive in that at times supportive relationships promote individualistic values. Building positive social connections with others should put people in a good position to receive social support that is instrumental to personal growth, as well as allowing people to strike a balance between these two fundamental values—to strive and connect.

#### *Future Directions*

We acknowledge some limitations in the present studies. First, the correlational nature of Studies 2 and 3 does not allow us to make a causal claim or address the issue of bidirectionality regarding the I-through-We perspective. For instance, one could argue that people who strive successfully also enjoy more supportive social connections (e.g., others like them more). Nevertheless, the experimental results from Study 1 provide evidence for the direction consistent with the I-through-We perspective.

Although we found initial evidence supporting the generality of the I-through-We perspective, future studies could build on these efforts by testing the present framework in

different cultures (e.g., different regions, social class). Finding similar patterns across diverse cultures would further support the notion that the I-through-We perspective may be a universal process.

As for other potential mediating mechanisms, thinking about supportive others could make other types of mental contents and processes accessible. For instance, thinking about close others could lead to trust, a greater sense of control or power, higher self-efficacy beliefs (Rusbult et al., 2009), or energy (Luke, Sedikides, & Carnelley, 2012). Consequently, this could lead to different outcomes depending on the kinds of tasks people are asked to perform. Thus, it would be interesting for future studies to study the effects of supportive relationships in different judgment or decision contexts (e.g., Ybarra et al, 2012), as well as investigating other potential mechanisms underlying the link between supportive relationships and personal growth.

Finally, we do not claim that supportive relationships serve as a guarantee of personal growth. At times, reminders of social support can lead to social loafing (e.g., Latané, Williams, & Harkins, 1979), lower motivation, or the *outsourcing* of one's efforts to others (Fitzsimons & Finkel, 2011). Moreover, a growing number of studies suggest that at times close others can have a negative impact on personal growth (e.g., Bolger & Amarel, 2007; Kappes & Shrout, 2011). Thus, future studies should examine when and how supportive relationships promote or undermine personal growth.

### Conclusion

People receive many benefits from supportive relationships. Those who view their relationships as supportive may confidently pursue personal goals under uncertainty and grow. Our findings provide experimental and nationally representative results (from two distinct cultures) indicating that supportive relationships promote personal growth, and more broadly

speaking to the interactive nature between the intrapersonal and interpersonal forces involved in personal growth. As suggested with the I-through-We perspective, the tendencies to connect with others and strive and grow as individuals may augment and magnify each other.

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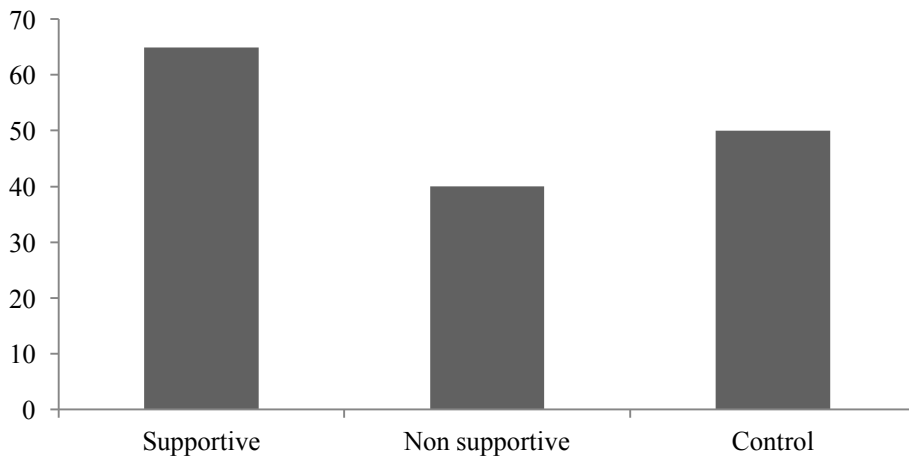
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Figure 1.1. *Percentage of participants who chose Company B (personal growth) over Company A.*



**Chapter 2**  
**Cultivating Effective Social Support Through Abstraction: Reframing Social Support  
Promotes Goal-Pursuit**

Abstract

Social support, in theory, should promote individual goal-pursuit. However, a growing number of studies has shown that receiving support can undermine goal-pursuit. Addressing this paradox, we investigated a novel idea of the effects of how people think about their social support on their goal-pursuit. Four experiments showed that participants who were led to think abstractly (vs. concretely) about their social support showed higher intent to pursue their goal (Studies 1-3) and worked harder toward their goal (Study 4). The benefits of abstracting one's social support occurred over a variety of personal goals, support types, and support-providers, indicating the generalizability and robustness of our findings. These results demonstrate that how people think about their social support influences goal-pursuit and suggest ways in which support-recipients can maximize their social support.

Decades of research indicate that social support plays a vital role in human flourishing. For instance, people who have more supportive relationships with others have better mental and physical health, higher levels of subjective well-being, and lower rates of morbidity and mortality (e.g., Berkman, 1995; Cohen, 2004; Cohen & Syme, 1985; Cohen & Wills, 1985; House, Landis, & Umberson, 1988; Lakey & Cronin, 2008; Seeman, 1996; Strobe & Stroebe, 1996; Thoits, 1995, 2011; Uchino, 2004). A recent meta-analysis (Holt-Lunstad, Smith, & Layton, 2010) showed that being socially integrated in a supportive social network predicts mortality more strongly than “classic” risk factors such as obesity. However, despite the plethora of compelling evidence, many researchers have pointed out that the mechanisms linking supportive relationships to positive outcomes are not well understood. Researchers have noted, for example:

“Future work needs to be based on clear theoretical models of mediating processes in support-well-being relationships” (Cohen & Wills, 1985).

“Attention to intervening mechanisms seems a crucial next step if we wish to truly understand how social support influences psychological well-being” (Thoits, 1995).

“The need to test the proposed theoretical mechanisms is one of the most pressing issues in this [social relationships and physical health] literature” (Uchino, 2004).

“Unfortunately, the mechanisms linking relationships to health, and the specific features of relationships that should be cultivated, are not well understood” (Feeney & Collins, 2015).

Contributing to the above knowledge gap, the present research examines how social support contributes to an important and ubiquitous life domain—goal-pursuit.

*Social Support: A Mixed Blessing in Goal-Pursuit*

By definition, social support promotes goal-pursuit by providing people with instrumental and emotional resources (e.g., Cohen, Gottlieb, & Underwood, 2000). Indeed, much research has shown that social support is instrumental to successful goal-pursuit and thriving (e.g., Brunstein, Dangelmeyer, & Schultheiss, 1996; Feeney, 2004; Feeney & Collins, 2015; Rusbult, Finkel, & Kumashiro, 2009). However, studies also have found receiving social support to be unrelated to positive outcomes or at times to be associated with negative ones (e.g., Barrera, 1986; Bolger, Zuckerman, & Kessler, 2000; Helgeson, 1993; Kaul & Lakey, 2003). A growing number of studies has begun to champion the notion that the receipt of support may be a “mixed blessing” (Gleason, Iida, Shrout, & Bolger, 2008; Rafaeli & Gleason, 2009). Moreover, the impact of social support may also vary by factors such as the recipient’s distress level or self-esteem (Girme, Overall, & Simpson, 2013; Marigold, Cavallo, Holmes, & Wood, 2014).

Why do certain support provisions fail to help support-recipients? Most of the extant research has investigated this question from the perspective of the *support-providers* (e.g., their characteristics, the type of support they provide). For instance, receiving help on an ego-relevant task led to negative affect and poor self-evaluation when the help came from a good friend (vs. a stranger) or a high-status (vs. low status) outgroup member (Nadler, Fisher, & Itzhak, 1983; Nadler & Halabi, 2006). Sometimes, support-providers may have a “partner-achievement goal,” or a personal goal for recipients’ successful achievement, which can lead them to offer unhelpful support that ends up hurting recipients’ goal-pursuit (Kappes & Shrout, 2011). Other studies have focused on *the type of support* being provided to the recipient. For example, research on invisible support shows that providing *visible* support can damage recipients’ self-esteem and undermine goal-pursuit by drawing attention to the recipients’ incompetence (Bolger & Amarel, 2007; Bolger et al., 2000; Howland & Simpson, 2010).

In the present research, we offer an additional perspective to help understand the apparent paradox of social support in goal-pursuit. Specifically, we examine whether support-recipients can actively shape their support outcomes, independent of who the support-provider is or what type of support they receive. We ask, what are the mechanisms by which support-recipients can cultivate effective support that promotes their goal-pursuit?

Investigating the role of support-recipients is critical for several reasons. First, most of the extant research to date has considered support-recipients as relatively passive agents (e.g., vulnerable to the deleterious effects of visible support), as if they have no control in shaping their own support outcomes (cf. Feeney & Collins, 2015). But to our knowledge, no research exists on how support-recipients can protect themselves from the possible adverse effects of certain types of support (e.g., visible support). Second, unless support-recipients preemptively express their needs to the support-provider, they are likely to have limited control over the type of support they receive or how they receive it. Thus, focusing on what they *can* do to maximize their support is important. Finally, research on social support has consistently shown the importance of the recipients' subjective *perception* of social support (relative to actual received support) on outcomes (Haber, Cohen, Lucas, & Baltes, 2007; Helgeson, 1993; Hofmann, Finkel, & Fitzsimons, 2015; Maisel & Gable, 2009). For instance, Maisel and Gable (2009) showed that even when social support is provided effectively (i.e., invisible support), recipients benefited only when they *perceived* their support-providers to have understood, validated, and cared for them. Thus, given the highly subjective nature of social support (Cutrona, 1986), the support-recipients' role—particularly their perception or construal of the support—should play a critical role in shaping support outcomes.

#### *Benefits of Abstracting One's Social Support*

The present research examines the novel idea that the manner in which support-recipients *think about* the support they receive influences important goal-related outcomes. Prior work on action-identification theory (Vallacher & Wegner, 1987, 1989) and construal level theory (Liberman & Trope, 1998; Trope & Liberman, 2003) indicates that actions can be represented at varying levels of abstraction, from concrete and low levels with the focus on *how* actions are performed, to abstract and high levels with the focus on *why* actions are performed. For example, one's representations of "tooth brushing" as "moving a brush around in one's mouth" (low-level, concrete, focus on the process) or "preventing tooth decay" (high-level, abstract, focus on the purpose) can have varying psychological and behavioral consequences (see Soderberg, Callahan, Kochersberger, Amit, & Ledgerwood, 2014, Trope & Liberman, 2010 for a review).

Likewise, we propose that the way support-recipients mentally represent their support (e.g., help with cleaning) should influence goal-relevant outcomes. A low-level, how-related, concrete representation of a supportive act would involve focusing on the *process* of social support, namely *how* the support-provider can help them (e.g., my partner can vacuum the floor for me). On the other hand, a high-level, why-related, abstract construal of the same supportive act would involve thinking about the *purpose and meaning* of social support, namely *why* the support-provider would like to help them (e.g., my partner would vacuum the floor for me because she/he cares about me). This should allow the recipients to make meaningful inferences about the supportive act (e.g., my partner loves me; e.g., Fujita, Eyal, Chaiken, Trope, & Liberman, 2008).

Extant research suggests that making meaningful inferences about one's social support could promote goal-pursuit. First, research on meaning and purpose has shown that making meaningful inferences from acts and events is critical for maintaining one's motivation in pursuit

of goals (e.g., Frankl, 1946/1984; Klinger, 2012; Maslow, 1968; see Heintzelman & King, 2014a, 2014b for recent reviews). In terms of deriving meaning from supportive acts, studies have shown that when people with low self-esteem are led to describe a compliment they had received from their romantic partner abstractly (vs. concretely) through elaborating on the meaning and significance of the compliment, they felt more positively about the compliment, about themselves, and about their relationships (Marigold, Holmes, & Ross, 2007, 2010). Recent studies also have found that even a momentary increase in relationship satisfaction can promote goal-pursuit (Hofmann et al., 2015). Moreover, the meaning-making process facilitated by the abstraction (vs. concretion) of social support may help support-recipients feel secure and cared for, and to believe that the support-providers are available and responsive, processes that have been found to facilitate goal-pursuit (Feeney, 2004, 2007; Feeney & Thrush, 2010). Finally, although potentially through a different mechanism, researchers have shown that reminders of a support-provider's instrumentality (i.e., low-level, focus on the process) led support-recipients to *outsource* their own effort to the support-provider, thus undermining their motivation to pursue that goal (Fitzsimons & Finkel, 2011).

### *Overview of Experiments*

The present research examines how thinking differently about one's social support influences goal-pursuit. In particular, we were interested in the effects of abstract (vs. concrete) representation of social support on people's motivation to pursue important goals. To facilitate abstract (vs. concrete) representations of social support, we led participants to write about *why* their close others would like to help them achieve a particular goal (abstract) or *how* their close



others could help them achieve the goal (concrete)<sup>1</sup>. Among the variety of manipulations used in previous research (see Burgoon, Henderson, & Markman, 2013 for a review of various manipulations), studies have successfully facilitated abstraction (vs. concretion) of actions by having people contemplate why (vs. how) the action occurred (e.g., Alter, Oppenheimer, & Zemla, 2010; Freitas, Gollwitzer, & Trope, 2004; Fujita, Trope, Liberman, & Levin-Sagi, 2006; Henderson, 2011, 2013; Strack, Schwarz, & Gschneidinger, 1985). We expected the why (vs. how) manipulation to induce people to form more meaningful inferences about their social support. Given the benefits associated with making meaningful inferences about one's social support (e.g., Feeney, 2004; Hofmann et al., 2015; Marigold et al., 2007), we predicted that participants in the why (vs. how) condition would show greater intent to pursue their goals. Moreover, although our focus was on the comparison between the two social support conditions (why vs. how), across the studies we included various types of control conditions to provide additional information for interpreting and understanding our results.

In pursuing these research goals, we used different methods and samples to maximize the generalizability of our results. Study 1 examined participants' intent to pursue an important goal as a function of thinking about one's social support concretely versus abstractly. Studies 2 and 3 enhanced the robustness of our findings by testing our effects across diverse goals and social support contexts, and by ruling out potential alternative explanations. Finally, in Study 4 we

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<sup>1</sup> There are multiple versions of this manipulation. For example, Freitas et al. (2004) asked participants to describe how (why) they might want to engage in an action first and then subsequently to explain how (why) they might accomplish that action repeatedly. Others have simply asked participants to list one how or why statement per a specific action (Alter et al., 2010; Henderson, 2013; Strack et al., 1985). Both methods have been shown to be effective. For our purposes, we chose the latter method to make the procedure feel more natural for the participants.

investigated the effects of thinking about social support concretely versus abstractly on actual goal-pursuit behavior.

### Study 1

The aim of Study 1 was to examine how thinking differently about social support influences goal-pursuit. We recruited college students one week before their Finals and assessed their motivation to study for their exams as a function of thinking differently about their social support. We expected that thinking about why a close other would like to (vs. how a close other can) help them would induce people to form more meaningful inferences about their social support. Given the benefits associated with such representations (e.g., Feeney, 2004; Klinger, 2012; Marigold et al., 2007), we hypothesized that participants in the why (vs. how) condition would show higher intent to spend time and effort studying for their exam.

### Method

#### *Participants and Design*

We approached one hundred and thirty-seven University of Michigan students (72 female;  $M_{\text{age}} = 19.92$ ) around campus during the week preceding Finals week and invited them to participate in the study in exchange for candy. Participants were randomly assigned to one of three conditions: how ( $N = 43$ ), why ( $N = 45$ ), and control ( $N = 50$ ). For this initial study, we determined our sample size based on Fitzsimons and Finkel (2011), who used measures similar to ours. Thus, we sought at least 35 participants per condition. However, because we expected some participants to not fully complete the survey or to not have Final exams, our research assistants (blind to experimental manipulations) were instructed to collect data until each condition had at least 40 participants. Four participants did not have a single Final exam and 6

participants failed to complete the survey; these participants were excluded from the analyses, leaving a total of 127 participants (how N = 38, why N = 41, and control N = 48) in the analyses.

### *Experimental Manipulations and Procedure*

As a cover story, the experimenter told participants they were interested in documenting students' study habits as part of an alleged class project. Participants first listed the subject of an exam for which they were currently studying. If they had multiple exams to study for, they were instructed to list the one they considered to be the most important. Participants were then to think about a close other (e.g., family, close friend, romantic partner) and indicate who the person was. Participants in the *how* condition were instructed to provide one example of how this person can help them study for their exam. Some example responses included "*my girlfriend can help me by encouraging me, helping me to relax, and keeping me on task with studying.*" and "*my mother, by giving me advice on how and when to study as well as managing my time.*" Participants in the *why* condition were instructed to provide one reason this person would like to help them study for their exam. Some examples included "*my romantic partner would like to help me because she loves me...*" and "*he wants me to succeed! He is committed to me doing well and knows that this class will help me with my future.*" Participants in the control condition were not given a writing portion to complete.

Next, participants rated how much time and effort they planned to spend studying for the exam during the weekend before their Finals. These items were modified from Fitzsimons and Finkel (2011), and the rating scale ranged from 1 (*much less than usual*) to 5 (*much more than usual*). The two items were highly correlated ( $r = .87$ ), so we averaged them to create a *planned goal-pursuit* variable, with higher scores reflecting higher motivation to study for the exam. Participants then completed a measure of goal-commitment ("Doing well on this exam is

important to me”) and a measure of perceived goal progress (“I feel satisfied with how prepared I am for this exam so far”) using a scale of 1 (*strongly disagree*) to 5 (*strongly agree*). Finally, to control for potential activities that might interfere with studying over the weekend, we asked participants to indicate how busy they expected to be on the weekend, besides studying for the exam (1 = *not at all busy*, 5 = *very busy*).

## Results and Discussion

### *Manipulation check*

To examine whether thinking about why a close other would like to help (vs. how a close other could help) promoted a more abstract construal of social support, two coders blind to experimental conditions content-coded participants’ responses using coding schemes developed for the Linguistic Categorization Model (Semin & Fiedler, 1988). For each response, raters coded each predicate into one of four linguistic categories: descriptive action verb (DAV; e.g., *say*), interpretive action verb (IAV; e.g., *help*), state verb (SV; e.g., *care*), or adjective (e.g., *kind*). These four categories are organized along a dimension of concreteness to abstractness, with DAVs being the most concrete and adjectives being the most abstract. To capture the different levels of abstraction, we used a weighting scheme based on 1, 2, 3, and 4 to weight DAVs, IAVs, SVs, and adjectives, respectively (Semin & Smith, 1999). For example, participants received 2 (4) points each time they used an IAV (adjective). After summing up the total points, we divided them by the number of predicates so that each participant ends up with a degree of abstraction that ranged from 1 to 4. The scores from the two judges’ ratings showed moderate agreement,  $\kappa = .59$ . Discrepancies in codes were resolved through discussion.

Because thirty-one participants (18 in the why condition) did not write enough words for the raters to code, they were excluded from this analysis. Nevertheless, as expected, participants

in the why condition ( $M = 2.40$ ,  $SD = .62$ ) used more abstract language to describe their social support than those in the how condition ( $M = 2.01$ ,  $SD = .51$ ),  $t(46) = 2.39$ ,  $p < .001$ ,  $d = .69$ .

### *Main analysis*

We first performed a one-way analysis of variance (ANOVA) on the planned goal-pursuit measure with condition as a between-participants factor. No main effect of condition emerged,  $F(2, 123) = 2.24$ ,  $p = .111$ . However, more pertinent to our central hypothesis, a planned comparison revealed that participants in the why condition ( $M = 4.00$ ,  $SD = .90$ ) planned to spend more time and effort studying for their exam compared with those in the how condition ( $M = 3.55$ ,  $SD = .91$ ),  $t(123) = 2.10$ ,  $p = .038$ ,  $d = .50$ . Planned goal-pursuit for participants in the control condition ( $M = 3.83$ ,  $SD = 1.01$ ) was not significantly different from those in either the why or the how condition,  $ps > .18$ . Additional analyses revealed that participants did not differ in how important they thought the exam was ( $F(2, 124) = .53$ ,  $p > .59$ ), how satisfied they were with how prepared they were for the exam ( $F(2, 124) = 2.09$ ,  $p = .128$ ), and how busy they expected to be over the weekend ( $F(2, 122) = .31$ ,  $p > .73$ )<sup>2</sup>. No specific comparisons reached significance.

Our findings provide initial evidence that how people think about their social support can influence planned goal-pursuit. Specifically, students who were led to think about the meaning and purpose (“why”) behind their support demonstrated higher intent to study for their exam than those who thought about the means and process (“how”) of their support. We believe these results provide a conservative test of our hypothesis, given that students tend to be highly motivated to study for final exams (only 8% of the sample scored below the midpoint, “*about the same as usual*”).

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<sup>2</sup> Degrees of freedom differed slightly due to missing responses from some participants.

Although our main focus revolves around the comparison between the why and how social support conditions, it is interesting to consider planned goal-pursuit in the control condition in this study, which did not differ significantly from the why or the how conditions. One possible explanation is that students' higher motivation to study shortly before their Finals led to a ceiling effect, making it difficult for us to detect variability in their responses. Another possibility is that although our sample size was based on previous work (Fitzsimons & Finkel, 2011), our study may be underpowered to detect potential significant differences. We sought to address these issues in Study 2.

## Study 2

Study 2 had two goals. First, we sought to replicate our findings using a larger sample. Second, we wanted to test the generalizability of our findings by having participants recall an important goal of their own, thus helping induce more variety in the goals participants considered. Specifically, we asked participants to think about an important goal they are currently pursuing and measured their motivation to put in the time and effort toward achieving it. As in Study 1, we expected participants in the why (vs. how) condition to demonstrate greater intent in their goal-pursuit.

## Method

### *Participants and Design*

We recruited one hundred and ninety-eight participants (95 females,  $M_{\text{age}} = 33.92$ ) from Amazon.com's Mechanical Turk. Participants were monetarily compensated for their responses to an online survey. Given the small to medium effect size observed in Study 1, we sought to recruit about 65 participants in each condition.

### *Procedure and materials*

Each participant was asked to first describe an important goal that they are currently pursuing. Some examples included losing weight, getting a job, and paying off debt. Given that these goals are likely to differ on many dimensions, participants also responded to the following questions: “how important is this goal to you?”, “how difficult to achieve is this goal?” (1 = *not at all*, 5 = *very much*), and “where are you currently in terms of your progress toward this goal” (1 = *have not started pursuing the goal yet*, 5 = *very close to completing the goal*)<sup>3</sup>. Then, as in Study 1, participants were randomly assigned to one of three conditions: how (N = 69), why (N = 64), and control (N = 65). The experimental manipulation paralleled that of Study 1, except for the control condition. We used a new control condition to keep its structure equivalent to the two experimental conditions. Specifically, participants wrote about a recent small talk event they had with someone. Thus, similar to participants in the how and the why conditions, they wrote about a social event; however, critically, they did not write about receiving social support. Five participants who did not complete the writing portion or who wrote about topics irrelevant to our instructions were excluded from the analyses, leaving a total of 193 participants (how N = 67, why N = 61, and control N = 65) in the analyses. Similar to Study 1, participants then rated how much time and how much effort they planned to spend working toward their goal (*planned goal-pursuit*,  $r = .73$ ). Subsequently, participants reported their mood on a scale from 1 (*negative, sad, upset*) to 5 (*positive, happy, joyful*). After completing demographic questions, we compensated the participants.

## Results and Discussion

### *Manipulation check*

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<sup>3</sup> Responses to these items did not differ significantly across conditions,  $p > .37$ .

As in Study 1, two coders blind to experimental conditions content-coded participants' responses, using the same coding schemes as in Study 1 (Semin & Fiedler, 1988). The index scores from the two judges' ratings showed moderate agreement,  $\kappa = .50$ . Discrepancies in codes were resolved through discussion to form a single index. One participant (in the why condition) who did not generate enough words for us to code was excluded from this analysis. As expected, participants in the why condition ( $M = 2.62, SD = .70$ ) used more abstract language to describe their social support than those in the how condition ( $M = 2.07, SD = .40$ ),  $t(125) = -5.60, p < .001, d = .95^4$ .

#### *Main analysis*

We performed a one-way analysis of variance (ANOVA) on the planned goal-pursuit measure with condition as a between-participants factor. No main effect of condition emerged,  $F(2, 190) = 2.22, p = .11$ . However, more pertinent to our main hypothesis, a planned comparison revealed that participants in the why condition ( $M = 3.71, SD = .70$ ) planned to spend more time and effort working toward their goal compared with those in the how condition ( $M = 3.43, SD = .79$ ),  $t(190) = -2.07, p = .04, d = .38$ . As in Study 1, planned goal-pursuit for participants in the control condition ( $M = 3.52, SD = .86$ ) did not differ from those in the why or the how conditions,  $ps > .16$ .

To test for alternative explanations for the difference in goal-pursuit between the why and the how conditions, we also asked participants to indicate how helpful they think their close other would be with the goal, how close they are with this person, how much they think this

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<sup>4</sup> To get a sense of the level of abstraction participants displayed in the control condition, we also coded their response using the same coding scheme. Participants in the control condition ( $M = 1.53, SD = .47$ ) used fewer abstract words in their response compared with those in the why condition or the how condition,  $ps < .001$ .



person cares about them, how much they care about this person, and how difficult it was to follow our manipulation, using 5-point scales (1 = *not at all*, 5 = *extremely*). None of these variables differed between the two conditions nor did they significantly moderate the effects.

Consistent with Study 1, participants who thought about why their close other would like to help them (vs. how their supportive other could help them) achieve their goal planned to spend more time and effort pursuing an important goal. That the effects were evident with a variety of goals the participants recalled further adds to the generalizability of the benefits of abstracting social support. Collectively, these results highlight that receiving support on a goal can have varying effects on goal-pursuit depending on how the support-recipient thinks about the support. In Study 3, we sought to examine the robustness of our phenomena by testing whether the benefits of abstracting social support extend to how people deal with receiving social support that involves negative feedback.

### Study 3

Goal-pursuit is difficult. Dieters often fail to stick to their diet plans. Students often regret having gone out to party when they should have stayed in and studied for their exam. Sometimes, providing “good” social support involves providing negative feedback. Although research shows that receiving negative feedback is instrumental to successful goal-pursuit (Fishbach, Eyal, & Finkelstein, 2010), one problem is that it can undermine recipients’ goal-pursuit by eliciting defensiveness or reactance (Brehm, 1966; Podsakoff & Farh, 1989) or by damaging the recipients’ self-esteem (Bolger & Amarel, 2007; Dweck & Leggett, 1988).

Building on our earlier studies, we examined whether encouraging recipients to think about negative feedback abstractly (e.g., focus on the reasons behind the negative feedback) promotes goal-pursuit. To do this, we recruited participants whose goal was to exercise regularly.

Participants recalled a time when their partner gave them a lecture for failing to stick to their exercise goal<sup>5</sup>. Because thinking about the reasons (i.e., why, abstract) behind social support encourages people to make meaningful inferences about a supportive act (even lecturing), we expected participants in the why (vs. how) condition to show higher intent to exercise. In addition, we included a no-writing control condition and an additional control condition in which participants thought about receiving social support in a non-exercise domain (Fitzsimons & Finkel, 2011) to provide more perspective for our findings.

### *Participants and Design*

We recruited two hundred and sixty-three participants (123 females,  $M_{\text{age}} = 35.76$ ) from Amazon.com's Mechanical Turk, whose goal was to exercise regularly. Participants were monetarily compensated for their responses to an online survey. As in Study 2, we sought to recruit about 65 participants in each condition.

### *Procedure and materials*

Participants were randomly assigned to one of four conditions: how ( $N = 64$ ), why ( $N = 67$ ), no-writing control ( $N = 65$ ), and career-goal support condition ( $N = 67$ ). Participants in the how (why) condition were instructed to take a moment to think about how (why) their partner lectured them. Then they wrote about “what did he/she exactly say and what were you doing at the time?” (“what might be some reasons behind his/her action?”) and “when and where did this happen?” (“what did his/her action mean to you and for your relationship with him/her?”). Participants in the no-writing control condition had no writing portion before indicating goal-pursuit intentions. We also included a career-goal support condition, in which participants wrote

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<sup>5</sup> A separate pilot study revealed that one of the most common types of support people receive when they pursue their exercise goals is others' helping them stick to their goals (e.g., through monitoring and reminders).

about one example of how their partner helped them with a *career goal* (taken from Fitzsimons & Finkel, 2011). Previous research has shown that thinking about a partner's instrumentality to one's goal (i.e., exercise) can lead one to outsource one's effort toward that goal (but not on other goals) to the partner (Fitzsimons & Finkel, 2011). Including this condition allows us to test for an alternative explanation that the lower intent for goal-pursuit in the how (vs. why) condition can be due to the higher salience of partner instrumentality, therefore resulting in more outsourcing in the how (vs. why and control) conditions.

Six participants who reported that their partner had never lectured them and 5 participants who either did not complete the writing portion or wrote about topics irrelevant to our instructions were excluded from the analyses, leaving a total of 252 participants in the analyses (how N = 59, why N = 63, no-writing control N = 65, career-goal support N = 65). Similar to the previous studies, participants then rated how much time and how much effort they planned to devote to exercise in the upcoming week (*planned goal-pursuit*,  $r = .86$ ). To account for potential differences in how participants viewed their partner, we assessed participants' perceived responsiveness of their partner using items adapted from Reis (2012): "My partner understands me", "My partner makes me feel like he/she values my abilities and opinions", and "My partner makes me feel cared for" ( $\alpha = .95$ ). Subsequently, participants reported their mood on a scale from 1 (*negative, sad, upset*) to 5 (*positive, happy, joyful*). After completing demographic questions, we compensated the participants.

## Results and Discussion

### *Manipulation check*

To examine whether thinking about the reasons and meaning behind a partner's negative feedback promoted a more abstract construal of received support, two coders blind to

experimental conditions content-coded participants' responses, using the same coding schemes as in Studies 1 and 2 (Semin & Fiedler, 1988). The scores from the two judges' ratings showed moderate agreement,  $\kappa = .40$ . Discrepancies in codes were resolved through discussion to form a single index.

Because three participants in the why condition did not generate enough words for us to code, they were excluded from this analysis (including them in the analysis did not alter the results). As expected, participants in the why condition ( $M = 2.26, SD = .43$ ) used more abstract language to describe their social support than those in the how condition ( $M = 1.70, SD = .41$ ),  $t(117) = 7.26, p < .001, d = 1.33^6$ .

#### *Main analysis*

As in previous studies, we first performed a one-way analysis of variance (ANOVA) on the planned goal-pursuit measure with condition as a between-participants factor. A main effect of condition emerged,  $F(3, 190) = 7.38, p < .001, \eta^2 = .08$ . However, more pertinent to our central hypothesis, participants in the why condition ( $M = 3.75, SD = 1.15$ ) planned to spend more time and effort exercising compared with those in the how condition ( $M = 3.20, SD = 1.07$ ),  $t(248) = 2.62, p < .009, d = .50$ , the no-writing control condition ( $M = 3.05, SD = 1.21$ ),  $t(248) = 3.38, p = .001, d = .59$ , and the career-goal support condition ( $M = 2.82, SD = 1.19$ ),  $t(248) = 4.54, p < .001, d = .79$ . Planned goal-pursuit for participants in the how condition was marginally higher than those in the career-goal support condition,  $p = .07$ , but no different from

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<sup>6</sup> Participants in the career-goal support condition ( $M = 2.23, SD = .53$ ) used more abstract words in their response compared with those in the how condition,  $p < .001$ , but no more than those in the why condition,  $p = .73$ .

those in the no-writing condition,  $p = .50$  (see Figure 2.1). Controlling for mood or perceived responsiveness<sup>7</sup> did not substantively influence the results.

Consistent with our previous studies, participants who thought about their social support abstractly (vs. concretely) demonstrated higher intent to pursue their goal. Interestingly, the benefits of abstraction extended to a type of support (i.e., negative feedback) that has been shown to backfire at times. From these results, it appears that support-recipients can maximize such support by focusing on the reasons behind the support and the support-provider's good intentions, rather than thinking about how the support provision unfolded. On the other hand, participants who thought concretely about their social support showed as much motivation to pursue their exercise goal as those who did not think about receiving support at all (no-writing condition). Moreover, participants in the career-goal support condition reported lower intent to exercise compared with those in the why condition and how condition (marginally significant). These results help rule out an alternative explanation that the lower planned goal-pursuit in the how (vs. why) condition is due to participants' outsourcing their effort to their partner, due to higher salience of partner instrumentality (Fitzsimons & Finkel, 2011).

Over three studies, we have shown consistent benefits of thinking abstractly (vs. concretely) about social support on a variety of goals with different samples. However, one limitation of these studies is that they relied on self-report measures. We next investigate how our effects influence actual behaviors related to goal-pursuit.

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<sup>7</sup> We found a main effect of condition on perceived responsiveness,  $F(3, 248) = 2.80$ ,  $p = .04$ ,  $\eta^2 = .08$ . However, this effect was mostly driven by the lower responsiveness score in the no-writing condition compared with those in the career-goal support condition,  $p = .011$ , and those in the why condition,  $p = .046$ . Controlling for this variable did not change our results.

## Study 4

In this study, we wanted to extend our findings by examining whether the different ways of thinking about one's social support influence actual goal-pursuit behaviors. Participants were led to believe they would be studying a new language with a study partner and that they would be tested individually. Prior to studying with their partner, though, they were given "optional" study materials that supposedly would help their performance on the test. To gauge their motivation to do well on the test, we assessed how much participants studied the optional study materials. We hypothesized that participants who thought about why their study partner would help them (vs. how their study partner could help them) would show higher motivation to perform well on the test they thought they would take. This would be demonstrated in performance differences on a pop quiz based on the optional materials.

## Method

### *Participants and Design*

Forty-six University of Michigan students (23 female;  $M_{\text{age}} = 19.04$ ) participated in this study on "how people acquire a new language" for course credit. Participants were told they would be working together with a partner to learn a new language and would be tested on their performance individually. Participants were randomly assigned to one of the two conditions: how ( $N = 22$ ) and why ( $N = 24$ ). Sample size was determined prior to data collection (at least 20 participants per condition). With this in mind, our research assistants were instructed to collect data until the end of the semester.

### *Procedure and materials*

*Phase 1: Cover story and rapport building.* Each experimental session consisted of two participants and two experimenters who were blind to study hypotheses. Participants were told

they would be learning an artificial language with another student and would be individually quizzed on it later. To give them a sense of what they would be learning, the experimenter showed participants a sample list of artificial words and explained that one of the later tasks would involve memorizing new artificial words and their English translations. To build rapport with the study partner before studying together (second part of interaction, which never occurred), participants interacted for 7 minutes in a different room. During this time, they were instructed to get to know each other. Previous studies have shown that this paradigm is effective in getting strangers acquainted and developing rapport (Ybarra, Winkielman, Yeh, Burnstein, & Kavanagh, 2011).

*Phase 2: Experimental manipulation.* After the rapport session, participants returned to their individual laboratory room and completed a brief questionnaire about their upcoming study session with their partner. Participants were randomly assigned to write about either 1) *how* their partner can help them on the quiz they will take later (e.g., “*My partner can help me by studying and quizzing me on the new vocabulary*”) or 2) *why* their partner would like to help them on the quiz they will take later (e.g., “*My partner would love to help me because we got along well when we were getting to know each other in the other room.*”). To assess perceived difficulty of the task, we asked participants to indicate how much time they thought they would need to memorize 20 new words (1 = *about 1 to 3 minutes*, 5 = *about 13 to 15 minutes*) and how difficult it would be to do so (1 = *not difficult at all*, 5 = *very difficult*). In addition, to measure how motivated participants would be to study with their partner, participants indicated how much effort they would put into memorizing 20 new words (1 = *not very much*, 5 = *very much*).

*Phase 3: Assessing motivation.* Immediately after the questionnaire, the experimenter provided participants with a vocabulary list that contained 15 new, artificial language words and

their English translations (e.g., “Sted” (means “blanket” in English); “Proter” (means “stapler” in English). The experimenter said: “*I need to go set up for the next part of the study, so I will be back in a few minutes. While I am gone, here are some materials you can look at if you’d like in the meantime. These are in a different language from what you will be working on but its structure has some similarities, so you might find it useful later on. I will be back soon!*” The purpose of this setup was to assess participants’ motivation regarding the upcoming task (which never took place). We reasoned that if participants were motivated to perform well, they would put more effort into studying the optional list they were told would help them later (though they would not be tested on it directly). However, if participants were not highly motivated, they should not put as much effort into studying a word list they were told would not directly overlap with material to be tested later. When the experimenter returned (after 2 minutes), we measured participants’ motivation by presenting participants with an unexpected quiz on the 15 presented words. The quiz had two parts: for the first part, participants were to select (out of a 50 word list) the 15 artificial language words from the optional study materials. They were given 1 minute to select as many as possible ( $M = 8.83$ ,  $SD = 3.63$ ). For the second part, they were given the list of 15 artificial language words and asked to write the matching English words ( $M = 4.02$ ,  $SD = 3.76$ ). For both parts, participants received one point per each correct answer. Scores on the two parts were significantly correlated ( $r = .63$ ), so we combined them to create an overall quiz performance score ( $M = 12.85$ ,  $SD = 6.67$ ).

*Phase 4: Control variables and debrief.* Given that amount of self-regulatory resources can influence goal-pursuit (Fitzsimons & Finkel, 2011), we measured and controlled for a central element of self-regulation resources—level of executive functioning—with the Trail Making Test (Reitan & Wolfson, 2001). Moreover, to account for any potential effects of study partners



or the quality of their interaction, we asked participants 4 questions dealing with how motivated they were to interact with their partner on a scale from 1 (*not at all*) to 7 (*very much*) (e.g., “*how much did you pay attention to this person during the interaction?*”;  $\alpha = .82$ .) and 5 questions dealing with their evaluation of the quality of their interaction on a scale of 1 (*strongly disagree*) to 7 (*strongly agree*) (e.g., “*The conversation went very smoothly*”;  $\alpha = .94$ ). Finally, participants provided demographic information. At this point, we used a funnel debriefing procedure (Chartrand & Bargh, 1996) to inform participants the study was complete and that the subsequent interaction with the other participant would not take place. No participants reported that they expected a pop quiz on the optional study materials or that they were suspicious of our cover story and procedure.

## Results

The goal of Study 4 was to examine whether different ways of thinking about one’s social support influences actual behaviors related to motivation and goal-pursuit. Consistent with the pattern of results from the previous Studies, participants in the *why* condition ( $M = 15.17$ ,  $SD = 6.91$ ) scored higher on the quiz than those in the *how* condition ( $M = 10.32$ ,  $SD = 5.49$ ),  $t(44) = -2.62$ ,  $p = .012$ ,  $d = .78$ . More specifically, participants in the *why* condition outperformed those in the *how* condition in both the vocabulary recognition quiz ( $M_s = 10.00, 5.17$ ;  $SD_s = 3.43, 4.27$ ) ( $t(44) = -2.41$ ,  $p = .021$ ) and the vocabulary matching quiz ( $M_s = 7.55, 2.77$ ;  $SD_s = 3.47, 2.67$ ) ( $t(44) = 2.26$ ,  $p = .029$ ), as predicted. The results indicate that participants who thought about *why* their partner would help them compared with those who thought about *how* their partner would help them had higher motivation to do well on the anticipated test.

Additional analyses revealed that participants in the two conditions did not differ on how much time they thought they would need memorizing the words in the ostensibly upcoming

study session,  $t(44) = .54, p > .250$ , or how difficult they expected the task to be  $t(44) = 1.47, p = .148$ . Thus, these findings suggest that our manipulation did not have a significant impact on participants' confidence or perception of task difficulty. Further, participants in the two conditions did not differ in their self-reported anticipated effort in memorizing the words with their partner,  $t(44) = -.05, p > .250$ . Additionally, there were no differences across conditions in the amount of cognitive resources as measured with the Trail Making Test,  $t(43) = 1.45, p = .15$  (degrees of freedom are lower because one participant did not complete this task). Finally, participants in the two conditions did not differ in their motivation to interact with their partner,  $t(44) = -1.00, p > .250$ , or in their assessment of interaction quality,  $t(44) = .29, p > .250$ . Controlling for the above covariates did not alter any of our results. In addition, none of these covariates was significantly correlated with vocabulary quiz performance. Collectively, the additional analyses help rule out potential alternative explanations (e.g., participants in the how vs. why condition were less likely to study the optional materials because they predicted the task to be easier).

### General Discussion

Four experiments demonstrated that how people think about their social support can influence important goal-related outcomes. Specifically, participants who thought about their social support abstractly (vs. concretely) reported higher intention to put effort and time into their goals (Studies 1 – 3). Showing a behavioral implication of these effects, Study 4 demonstrated that participants who thought about why their partner would help (abstract) compared with those who thought about how their partner could help (concrete) studied harder to prepare for an upcoming task, reflecting higher motivation. Collectively, the benefits of abstracting one's social support occurred across a variety of personal goals, support types (e.g.,

negative feedback, instrumental support), and support-providers (e.g., partner, acquaintances). One strength of the current research is the use of varied methods across four studies to increase the generalizability of the results.

Our findings contribute to the current debate regarding the role of received support in goal-pursuit. On one hand, much research suggests that social support promotes goal-pursuit (e.g., Brunstein et al., 1996; Feeney, 2004; Rusbult et al., 2009); on the other, a growing number of studies have begun to show that receiving support can undermine goal-pursuit for a variety of reasons (e.g., Bolger et al., 2000; Bolger & Amarel, 2007; Fitzsimons & Finkel, 2011). By showing that how people think about their support also influences important goal-related outcomes, we provide insight into the seemingly divergent effects of social support on goal-pursuit. Moreover, by demonstrating the consequence of one's thoughts about or construals of the support, we shed light on one mechanism through which social support affects individuals—an understudied endeavor—despite much evidence on the benefits of social support (c.f. Cohen & Janicki-Deverts, 2009).

Broadly, our results align with other work that emphasizes the importance of studying *interpersonal* factors in goal-pursuit (e.g., Feeney & Collins, 2015; Fitzsimons & Finkel, 2010; Fitzsimons, Finkel, & vanDellen, 2015; Rusbult et al., 2009). Much recent psychological research has approached the topic of goal-pursuit as an outcome of *intrapersonal* processes. For instance, people are likely to achieve their goals if they are motivated, confident, have sufficient skills or self-regulatory resources, or can delay gratification (e.g., Baumeister, Schmeichel, & Vohs, 2007; Deci & Ryan, 1985). However, we contribute to the available evidence by showing that these critical skills and individual qualities (often thought as intrapersonal) can also be influenced by interpersonal factors such as social support. Because much of striving toward goals

is in reality closely tied to a person's social environment (e.g., receiving help and advice from others), it is important to consider the *interpersonal* factors that allow people to work towards their goals.

The simple nature of our writing manipulations lends itself to potential intervention efforts that can help people maximize the benefits of social support. Recent interventions that have used brief but powerful writing exercises to change specific psychological mechanisms responsible for specific social problems have been quite successful in promoting positive outcomes (Bryan, Walton, Rogers, & Dweck, 2011; Marigold et al., 2007, 2010; Walton & Cohen, 2011; Zunick, Fazio, & Vasey, 2015). Consistent with this “wise psychological interventions” approach (Walton, 2014), we have sought to guide individuals toward more adaptive construals of their social support. Continuing such efforts seems important given that social support interventions have had mixed results (see Hogan, Linden, & Najarian, 2002).

#### *Limitations and Future Directions*

Because much of goal-pursuit occurs over time, future research should examine whether these findings generalize to long-term outcomes such as motivation over time or the likelihood of goal-attainment. Moreover, at times, the “why” mindset might have negative implications, for example, if people make attributions detrimental to their self-esteem or self-efficacy (e.g., I'm receiving help because I'm inadequate). Indeed, such maladaptive attributions are likely among individuals with low self-esteem (Marigold et al., 2014). Relatedly, future research should also investigate potential individual differences (e.g., attachment styles) that may moderate our effects. Furthermore, sometimes people may have difficulty generating meaning out of their social support, which can make them feel worse about themselves (cf. Schwarz, et al., 1991).

Nevertheless, in our studies, participants did not find abstracting their support more difficult than making it concrete.

Finally, we included a variety of control conditions in our studies as a “reference point” to provide more information to help interpret our findings. Given that most goal-pursuit does not occur in a vacuum, the conceptual meaning of the control condition is somewhat vague. In this vein, we hesitate to read too much into the results of our control conditions. For example, the significant difference in goal-pursuit between the why condition and the control condition in Study 3 does not necessarily mean that abstracting social support is more beneficial to goal-pursuit than lone goal-pursuit. Instead, our focus was on demonstrating the effects of how people think about their social support on goal-pursuit. Still, comparing goal-pursuit with and without social support seems to be a fruitful endeavor, especially given the current debate on the role of received support in goal-pursuit.

### Conclusion

People receive many benefits from supportive relationships. However, it is unclear how they can leverage these benefits to pursue their goals and thrive. One mechanism by which support-recipients can positively shape their support outcomes is through thinking abstractly about one’s social support, focusing on the purpose and meaning behind the support. Our findings shed light on the link between social support and goal-pursuit by demonstrating that the manner in which people think about social support influences goal-pursuit.

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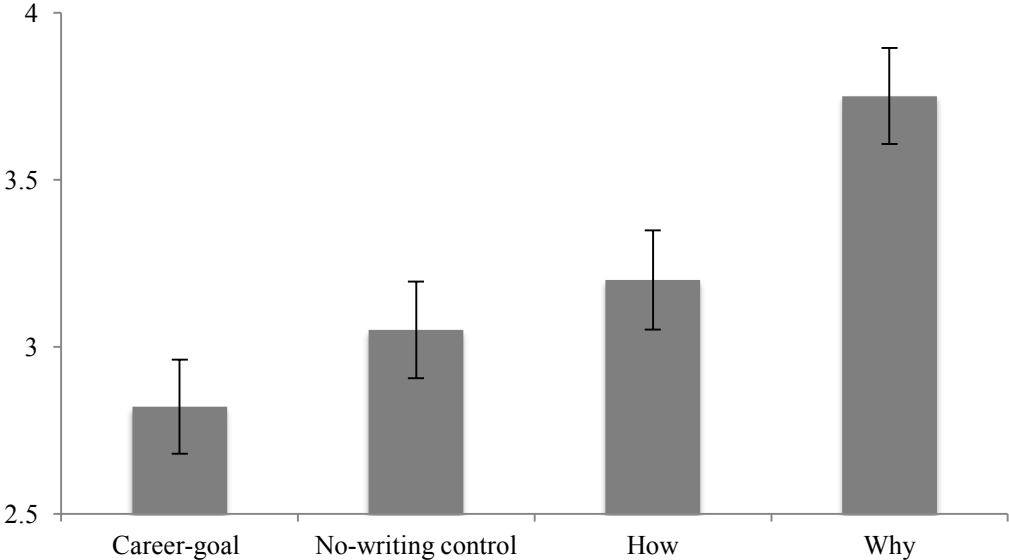
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Figure 2.1. *Planned goal-pursuit (exercise) as a function of condition in Study 3.*



### **Chapter 3**

## **When How You Provide Social Support Matters: Facilitating Reconstructing of Negative Experiences Promotes Coping in Support-Recipients**

### **Abstract**

The leveraging of social support is considered one of the most effective coping strategies. However, little is known about how social support facilitates coping. We tested one mechanism in how support-providers enable support-recipients to cope with their distressing personal events—by enabling them to reconstruct (rather than recount) their negative experiences. In Study 1, support-recipients who interacted with support-providers who facilitated them to reconstruct (vs. recount) their negative experience felt less negative affect and reported a higher sense of closure. Extending these findings, Study 2 demonstrated that receiving support that enables reconstructing (vs. recounting) of distressing personal events promoted coping in support-recipients regardless of whether they generally preferred to receive reconstructing or other types of support. These findings suggest reconstructing as one possible mechanism that explains the beneficial effects of social support on coping.

You're on the phone with your best friend whose romantic partner has just left him. You would like to console and provide support to your dejected friend. This can indeed be helpful in part because the experience of negative arousal makes cognitive analysis of one's emotions difficult (Metcalf & Mischel, 1999), so it is likely that your friend may not be able to adaptively work through his negative emotions alone. Thus, your role as the support-provider is critical in this situation. How would you go about doing this?

You may try, for instance, to distract him from thinking about his romantic partner at all costs (e.g., taking him out to watch a funny movie). Alternatively, you could assure him that things will get better (e.g., "you'll find someone better") or just simply listen to him as he talks out his feelings. Could the various strategies you use in this situation produce different results? Might a particular strategy be more effective than others? Could certain social support approaches actually backfire in helping others cope with their negative experiences?

The present research examines the following question: what are the processes involved in support interactions that allow the support-recipients to effectively cope with their negative experiences? Drawing from research on how individuals work through their negative experiences and emotions (e.g., Gross, 1998a, 1998b; Kross & Ayduk, 2011; Kross, Ayduk, & Mischel, 2005), and work on social support and coping (e.g., Cohen & Wills, 1985; Thoits, 1986), we contribute to both research areas by investigating a novel idea, that the effectiveness of emotional support (i.e., reducing negative affect, promoting closure) depends on the support-providers' role in guiding the support-recipients to work through their negative experiences adaptively (Kross & Ayduk, 2011; Kross et al., 2005; Marroquín, 2011).

*Social support and coping*

In general, social support facilitates coping by operating as a stress buffer (e.g., Cohen, 2004; Cohen & Wills, 1985; Thoits, 2011). For instance, the actual receipt of support (e.g., affection, advice, financial assistance) may facilitate coping by providing a solution to the problem. Other times, the perception that others are available to provide appropriate aid can reduce stress by bolstering one's perceived ability to cope with stressors (Cohen & Wills, 1985; Thoits, 1986; Wethington & Kessler, 1986). Likewise, substantial evidence over the past decades has shown that people who have more social support report lower stress, better mental health, and higher levels of subjective well-being, while those who lack social support tend to suffer from adverse mental and cognitive outcomes including anxiety, depression, and lower cognitive ability (e.g., Berkman, 1995; Cacioppo & Hawkley, 2009; Cohen, 2004; Cohen & Syme, 1985; Lakey & Cronin, 2008; see Lakey & Orehek, 2011 for a review; Seeman, 1996; Stroebe & Stroebe, 1996; Thoits, 1995, 2011; Uchino, 2004, 2009; Uchino, Cacioppo, & Kiecolt-Glaser, 1996; Vaux, 1988). Given these findings, it is no surprise that accessing social support is considered one of the most effective coping strategies (Cohen & Wills, 1985; Thoits, 1986).

However, despite a plethora of evidence on the benefits of social support, many researchers assert that we still do not know *how* exactly social support promotes coping (Berkman & Syme, 1979; Cobb, 1976; Cohen & Janicki-Deverts, 2009; Cohen & Wills, 1985; Lakey & Orehek, 2011; Marroquín, 2011; Thoits, 2011; Uchino, 2004). Furthermore, some studies have found no link between received support and mental health (Barrera, 1986; Finch, Okun, Pool, & Ruehlman, 1999; see Lakey & Orehek, 2011), while other studies show that receiving support is linked to worse mental health (Barrera, 1986; Bolger & Amarel, 2007; Bolger, Zuckerman, & Kessler, 2000). Given this critical knowledge gap, more research on the mechanisms underlying the effects of social support on coping is necessary.

*How can support-providers facilitate adaptive (or maladaptive) coping?*

Prior research suggests that attempts to analyze one's negative emotions around past experiences can have both adaptive and maladaptive consequences (Ayduk & Kross, 2008; Kross & Ayduk, 2008, 2011; Kross et al., 2005). For instance, when the focus is on *recounting* the emotionally evocative details of their experience (i.e., what happened, how they felt) as if they are reliving the experience, people end up ruminating more and feeling worse (Nolen-Hoeksema, 1991). Relatedly, efforts to regulate negative emotions through venting or “blowing off steam” have been found to backfire (Bushman, 2002; Bushman, Baumeister, & Phillips, 2001; Bushman, Baumeister, & Stack, 1999). On the other hand, when the focus is on *reconstructing* their experience (i.e., focusing on the big picture and reasons underlying their experience), people's attempts to analyze their negative emotions lead to ways that promote insight, closure, and less negative affect. Moreover, this shift in the content of people's thoughts leads to lower levels of emotional reactivity (Kross & Ayduk, 2008; Kross et al., 2005).

Extending the above logic, we propose that the support-provider can promote coping by guiding the support-recipients to reconstruct (rather than recount) their negative experience. For instance, support-providers can facilitate reconstructing by encouraging support-recipients to think about alternative perspectives or the reasons underlying their event. In addition to reducing negative affect, this shift in thought contents should help people make sense of their event and experience higher sense of closure (Kross et al., 2005; Kross & Ayduk, 2011). In contrast, support-providers may also encourage the support-recipient to focus on rehashing or recounting the emotionally-evocative aspects of their negative experience as if they were reliving it. In this case, regardless of their intentions, the support-provider might lead the support-recipient down

the ruminative path that heightens negative affect (Bushman, 2002; Kross & Ayduk, 2011; Kross et al., 2005; Rose, 2002).

### *Present Research*

The present research attempts to identify the processes involved in social support interactions that facilitate adaptive (vs. maladaptive) coping. Our research question is motivated by the following knowledge gaps: First, despite decades' worth of evidence on the benefits of social support, very little is known about *how* social support contributes to coping. Second, much of extant research has investigated how individuals cope with negative experiences in solitude, focusing on coping as an *intrapersonal* process. Given that people regularly turn to others to cope with negative experiences, investigating how this process unfolds in support interactions is critical. To our knowledge, no research has empirically examined this question in a controlled laboratory setting.

In two studies, participants (support-recipients) discussed a distressing personal experience (e.g., romantic breakup) with a research assistant who acted as the support-provider. Drawing from prior work (e.g., Ayduk & Kross, 2010; Kross & Ayduk, 2008), we manipulated how the support-provider guided the conversation by asking questions that encouraged participants to *reconstrue* (i.e., focus on reasons underlying the experience and its “big picture”; e.g., “Can you think of the reasons why this event may have happened?) or to *recount* the event (i.e., focus on the concrete details of the experience and re-living it; e.g., What went through your mind during the exact moment?). Based on prior research on how people work through their negative experiences (Kross & Ayduk, 2011), we hypothesized that when the support-provider promotes support that facilitates reconstruing (vs. recounting), participants would experience less negative affect and a higher sense of closure about their experience. In Study 2, we examined



whether the support-recipients' preference to receive a certain type of support (e.g., recounting) moderated these effects.

## Study 1

### Method

#### *Participants*

Sixty-five (46 females;  $M_{\text{age}} = 21.32$ ,  $SD_{\text{age}} = 4.99$ ; 9% African American, 24% Asian American, 42% White, 25% other) participants participated in a study on how people deal with interpersonal conflicts. As this was an intensive study involving a novel paradigm, we strove to have 30 participants per condition. To be eligible for this study, participants had to meet the following criteria: a) they had to have a recent and unresolved interpersonal conflict (e.g., getting into an argument, being rejected) with a close friend or loved one, b) the experience was currently bothering them, and c) they were willing to discuss and get over the experience. As compensation for their participation in the study, participants received \$10<sup>8</sup>.

#### *Procedure and materials*

Each experimental session included two experimenters who had different roles. One experimenter (the *Experiment-facilitator*), blind to study hypotheses and conditions, provided participants with general study instructions in person. A second experimenter (the *Support-provider*), blind to study hypotheses, was assigned to talk to participants about their experience. To make participants feel more comfortable disclosing personal events that may be sensitive, the conversation took place over an online instant messenger (Skype without video).

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<sup>8</sup> We also collected additional data the following day for exploratory purposes. As they are not germane to the scope of this study, we will not discuss them further.

All participants came to the study prepared to talk about their distressing experience. In the beginning of the study, the Experiment-facilitator told them that they would be discussing their experience with a trained research assistant (Support-provider) in another room via instant messenger. Participants were then left alone in the room to complete the study on their own. All subsequent communications between participants and the Support-provider occurred via instant messenger.

**Phase 1: Baseline mood.** After consenting, participants indicated their baseline mood by responding to the following question, “*how do you feel right now?*”, using a 0 (*very bad*) to 100 (*very good*) scale ( $M = 67.26$ ,  $SD = 18.03$ ). Participants were instructed to notify the Support-provider on the instant messenger when they were done.

**Phase 2: Getting-acquainted session.** Before participants began sharing their conflict, the Support-provider initiated an ice-breaking conversation for 5 minutes. The purpose for this brief activity was to allow participants to feel comfortable talking to the Support-provider before sharing a more intimate emotional experience. The Support-provider was carefully trained to only ask previously constructed questions (e.g., “*how is your summer going?*”) and to give standardized responses in response to participants’ answers (e.g., “*that sounds interesting!*”).

**Phase 3: Main conversation and experimental manipulations.** Next, the Support-provider naturally transitioned to talk about the participants’ experience. Participants were told: “*Now let’s switch gears a little bit. In the email, you were asked to come prepared with an interpersonal conflict to talk about. This conflict can be anything from a fight you had with your roommate to rejection from a loved one as long as it’s currently causing you stress. Could you briefly tell me about the experience? What happened? Who did it involve?*” After participants had a chance to talk about their experience at length, they were randomly assigned to one of two

conditions: In the *reconstrue-support* condition ( $N = 33$ ), the Support-provider asked questions to lead participants to think about their negative experience from diverse perspectives and focus on why they were experiencing specific emotions (e.g., “*Looking at the situation, could you tell me why this event was stressful to you?*”, “*Why do you think you reacted to the person that way?*”). In the *recount-support* condition ( $N = 33$ ), the Support-provider asked questions that led participants to re-live the experience by focusing on the concrete features of their experiences such as the specific chain of events and emotions (e.g., “*What went through your mind during the exact moment?*”, “*How did this make you feel at that moment?*”; see Table 3.1 for the list of questions). Because we did not want to cut participants off in the middle of their conversation, we did not restrict the amount of time for this conversation ( $M_{time} = 25.47$  minutes,  $SD_{time} = 11.08$  minutes). The length of the main conversation did not differ by condition,  $t(62) = .46, p = .46$ . At the end of the conversation, the experimenter thanked participants for sharing their story and sent them a web link (via Qualtrics) that included our measures of interest (described below).

#### **Phase 4: Dependent variables**

*Post-conversation mood.* Immediately following their conversation, participants indicated their mood by responding to the following question, “*how do you feel right now?*”, using a 0 (*very bad*) to 100 (*very good*) scale ( $M = 61.81, SD = 19.37$ ).

*Emotional reactivity.* Additionally, participants rated their emotions on the following two items: “*As I was talking to the Research Assistant about the event, I felt upset* ( $M = 4.66, SD = 1.54$ ),” and “*As I was talking to the Research Assistant about the event, my emotions and physical reactions were still intense*” ( $M = 4.14, SD = 1.66$ ) on a scale of 1 (*strongly disagree*) to 7 (*strongly agree*). Following previous research (e.g., Ayduk & Kross, 2010), ratings on these

items were averaged to indicate *negative emotional reactivity* ( $\alpha = .65$ ;  $M = 4.40$ ,  $SD = 1.37$ ), with higher scores reflecting more intense negative emotional reactivity.

*Sense of closure.* We used two close-ended items that conceptually mapped onto the two types of thoughts that reflect a sense of closure about an unresolved negative event (Kross & Ayduk, 2008; Kross et al., 2005; Kross & Ayduk, 2010). Participants responded to “*I had a realization that caused me to think differently about the experience,*” and “*I had a realization that led me to experience a sense of closure,*” on a 1 (*strongly disagree*) to 7 (*strongly agree*) scale. Participants’ judgments on the two items were averaged to indicate amount of closure, ( $\alpha = .92$ ;  $M = 3.87$ ,  $SD = 1.43$ ), with higher scores indicating a higher sense of closure.

*Covariates.* To account for a potential impact of how participants perceived the Support-provider (e.g., friendly) on their mood, we asked participants to indicate how much they liked and how close they felt to the Support-provider on a scale of 1 (*not at all*) to 7 (*very much*). These items were sufficiently correlated ( $\alpha = .71$ ) and thus were averaged to reflect likability ( $M = 4.70$ ,  $SD = 1.14$ ), with higher scores reflecting greater likability. Likability ratings did not differ as a function of condition,  $t(62) = -.27$ ,  $p = .79$ .

## Results

### *Exclusion criteria*

One session had to end prematurely because the participant spent more than 2 hours talking about the conflict (all other sessions were completed within the scheduled one hour). This participant was excluded from the analyses. One participant who was a friend of the Experiment-facilitator and another participant whose English was not proficient (needed to rely on an English translator to get through the experiment) were excluded, leaving a total of 63 participants (32 in the reconstrue condition) in the analyses.

### *Mood*

First, we examined the effect of different types of social support on mood changes (“How do you feel right now?”) by performing a 2 (Support type: Reconstruct vs. Recount) X 2 (Time of Assessment: Baseline vs. Post-conversation) repeated measures ANOVA. This analysis revealed a non-significant interaction,  $F(1, 59) = 2.13, p = .15$ . However, a close look at the results indicated that participants in the recount condition ( $M = 56.77, SD = 18.40$ ) compared with those in the reconstruct condition ( $M = 68.23, SD = 18.91$ ) reported feeling worse after the conversation,  $t(59) = -2.10, p = .02, 95\% CI [1.90, 21.02]$ . Interestingly, participants in the recount condition felt significantly worse after talking to the support-provider compared to how they felt prior to the conversation,  $t(59) = -2.04, p = .023, 95\% CI [-14.05, -1.09]$ . However, this was not the case for participants in the reconstruct condition,  $t(59) = .74, p = .77$ .

### *Negative emotional reactivity*

In addition to general mood valence, we examined participants’ negative emotional reactivity. Consistent with the mood findings, participants in the recount condition ( $M = 4.70, SD = 1.24$ ) reported experiencing more negative emotional reactivity than those in the reconstruct condition after the conversation ( $M = 4.02, SD = 1.44$ ),  $F(1, 59) = 5.22, p = .052, \eta^2 = .062$ .

### *Closure*

Earlier, we argued that support-providers can help support-recipients make sense of their negative experiences, for example, by encouraging them to think about new perspectives and underlying reasons for their experiences. We hypothesized that such a shift in thought contents should allow people to experience a greater sense of closure. Consistent with this conjecture, a one-way ANOVA revealed that participants in the reconstruct condition ( $M = 4.16, SD = 1.33$ )

experienced a greater sense of closure than participants in the recount condition ( $M = 3.43$ ,  $SD = 1.45$ ),  $F(1, 59) = 4.16$ ,  $p = .046$ ,  $\eta^2 = .066$ .

## Discussion

Consistent with our hypotheses, participants who received support that facilitated reconstruing (vs. recounting) reported feeling less negative affect and having achieved more closure after discussing a distressing personal experience. Interestingly, participants whose support-provider encouraged recounting of their negative experience felt worse than they did at the beginning of the study. Our findings provide initial evidence for a potential mechanism that can explain how social support promotes coping. Specifically, we demonstrate that *how* support-providers guide the support interaction (i.e., reconstruing vs. recounting) can lead to both adaptive or maladaptive coping outcomes for the support-recipients.

Still, the question remains of whether a focus on reconstruing (rather than recounting) will be a better strategy for everyone. It is possible, for instance, that some people prefer to recount or vent (rather than reconstrue) as they attempt to cope with negative experiences. If so, could encouraging them to reconstrue actually backfire? In Study 2 we examined how the support-recipients' preferences to receive a certain type of support (e.g., recount) potentially moderated participants' coping with their negative life events depending on type of support received (e.g., reconstrue). Moreover, because Study 1 may have been underpowered, we sought to increase our sample size in Study 2.

## Study 2

Study 2 had two goals: First, we wanted to replicate Study 1's findings with a larger sample. Given the small to medium effect size observed in Study 1, we doubled our sample size and sought to recruit about 60 participants per condition.

Second, we wanted to extend our findings by taking into account the role of support-recipients' preference for different types of support. Based on prior work positing that social support may be effective to the extent that it matches the support-recipient's needs and preferences (Cutrona, 1990; Cutrona & Russel, 1990; Cutrona & Suhr, 1992), a *match hypothesis* would suggest that support-providers should encourage *recounting* (*reconstruing*) for recipients who want to *recount* (*reconstrue*). On the other hand, a *main effect hypothesis* would posit that in general, facilitating reconstruing (rather than recounting) of a negative experience should better enable support-recipients to regulate negative affect and achieve closure (consistent with Study 1). Thus, Study 2 examined how the recipient's preference for a specific type of social support (e.g., reconstruing) influenced coping outcomes depending on type of support received (e.g., recounting).

## Method

### *Participants*

One hundred and nineteen (104 females;  $M_{\text{age}} = 22.96$ ,  $SD_{\text{age}} = 9.65$ ; 8% African American, 27% Asian American, 51% White, 14% other) participants took part in this study, which closely followed the procedure from Study 1.

### *Procedure and materials*

#### ***Session 1: Measuring social support preference***

Participants completed a survey that assessed their social support preference (see below). We also included additional questionnaires not germane to the study in order to keep participants blind to our study focus.

#### *Assessing social support preference*

*Pilot testing.* To get a sense of people's preferences for the type of social support they seek when dealing with distressing personal experiences, we asked participants from a different sample to describe what they would like their support-provider (e.g., partner, close friend, or family members) "to say and do for them when they feel stressed or upset about something". Responses from this pilot study motivated the construction of our social support preference measure (described below).

*Social support preference measure.* Based on the responses from the pilot study, a recent meta-analysis on common emotion regulation strategies (see Aldao, Nolen-Hoeksema, & Schweitzer, 2010), and our theoretical framework (see Kross & Ayduk, 2011), we created five vignettes that represented common ways in which people prefer to cope with their negative experiences. We included three vignettes that reflected different types of social support (i.e., recount, reconstrue, distract) and two vignettes that involved coping strategies unrelated to receiving social support (i.e., focusing only on the positives, yoga and meditation). The order in which each vignette was presented was randomized. Participants read through each vignette and then chose one that best reflected the type of social support they thought was the most effective (see Table 3.2). The distribution of the selected preferences is as follows: forty participants chose reconstrue (33.6%), 41 chose recount (34.5%), 20 chose distract (16.8%), 7 chose focusing only on the positives (5.9%), and 10 chose yoga and meditation (8.4%). One participant failed to respond to this measure.

## ***Session 2***

For Session 2, participants came to the laboratory one week after Session 1 to go through the same procedure used in Study 1. When they arrived, participants were randomly assigned to receive one of two support types: reconstrue (N = 60) or recount (N = 59). This randomization



subsequently resulted in participants' receiving support that matched ( $N = 51$ ) or did not their preference ( $N = 67$ ). The research assistants were blind to participants' support preferences and the study hypothesis. At the conclusion of Session 2, participants received monetary compensation for their participation.

## Results

### *Exclusion criteria*

One participant's computer froze and needed a software update, resulting in a 20-minute delay in the middle of the session. Due to scheduling conflict in the laboratory, three sessions were interrupted and had to end prematurely. In another session, a newly trained research assistant deviated from the research protocol<sup>9</sup>. Participants from these sessions were excluded, leaving a total of 114 participants (56 in the reconstrue condition; 65 in the non-matching condition).

### *Mood*

To examine the effects of social support types and participants' preference on mood changes, we performed a 2 (Support type: Reconstrue, Recount) X 2 (Support preference: Matching, Non-matching) X 2 (Time of Assessment: Baseline, Post-conversation) repeated measures ANOVA. First, consistent with our hypothesis, the analysis revealed a Support type X Time of Assessment interaction,  $F(1, 108) = 23.07, p < .001, \eta^2 = .18$  (see Figure 3.1). A closer look at the results showed that participants in the recount condition ( $M = 59.49, SD = 21.53$ ) compared with those in the reconstrue condition ( $M = 68.88, SD = 19.63$ ) reported experiencing

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<sup>9</sup> During the main conversation, the support-providers were trained to first verbally acknowledge participants' negative experience (e.g., "that must have been difficult for you") before asking questions that facilitated either reconstruing or recounting. In this session, the experimenter failed to acknowledge participants' negative experience. This resulted in the participant's rating of the research assistant's likability that was lower than 2.5 SDs from the mean.

feeling worse after the conversation,  $t(108) = 2.36, p = .02, 95\% \text{ CI } [1.51, 17.27]$ , consistent with findings from Study 1. Moreover, participants in the recount condition showed a significant increase in negative affect after talking to the support-provider compared to how they felt prior to the conversation ( $M = 69.91, SD = 18.22$ ),  $t(108) = 5.06, p < .001, 95\% \text{ CI } [6.63, 15.17]$ . On the other hand, participants in the reconstrue condition showed marginally improved mood compared to how they felt prior to the conversation ( $M = 65.24, SD = 20.79$ ),  $t(108) = -1.80, p = .075, 95\% \text{ CI } [-8.46, .41]$ .

#### *Negative emotional reactivity*

Unlike Study 1, the difference in negative emotional reactivity ( $\alpha = .77$ ) between the two support type conditions ( $M_{\text{reconstrue}} = 4.60, SD_{\text{reconstrue}} = 1.53$ ;  $M_{\text{recount}} = 4.71, SD_{\text{recount}} = 1.14$ ) was not significant,  $p = .75$ . As for this non-significant finding, it is possible that the specific nature of the items (i.e., upset, intense) did not fully capture the general negative mood participants felt after the conversation.

#### *Closure*

Consistent with findings from Study 1, a two-way ANOVA on closure ( $\alpha = .73$ ) revealed a main effect of support-type: Participants in the reconstrue-support condition ( $M = 4.50, SD = 1.48$ ) experienced a higher sense of closure than those in the recount-support condition ( $M = 3.91, SD = 1.53$ ),  $F(1, 109) = 4.76, p = .031, \eta^2 = .042$ . Controlling for participants' judgments of support-provider likability did not substantively influence these results.

#### *Does receiving support that matches one's preference moderate the findings?*

In addition to replicating Study 1's results, the goal of Study 2 was to examine whether support-recipients' preference for receiving a certain type of social support moderated the effects. In our 2 (Support type: Reconstrue, Recount) X 2 (Support preference: Matching, Non-

matching) X 2 (Time of Assessment: Baseline, Post-conversation) repeated measures ANOVA on participants' mood, we found a significant support type X support preference X time of assessment interaction,  $F(1, 108) = 5.94, p = .016, \eta^2 = .042$ . A closer look at this interaction revealed that for participants who received support that did not match their preference, reconstruing did not change their mood,  $p = .90$ , while recounting made them feel worse,  $t(108) = 2.47, p = .015, 95\% \text{ CI } [1.39, 12.61]$ . For participants who received support that matched their preference, reconstruing improved their mood,  $t(108) = -2.27, p = .025, 95\% \text{ CI } [.97, 14.42]$  while recounting worsened their mood,  $t(108) = 4.55, p < .001, 95\% \text{ CI } [8.35, 21.25]$ . Given these results, it is possible to infer that providing support that matches one's preference could promote coping in certain contexts (i.e., when the recipient prefers reconstruing) while not making things worse when participants prefer another type of support. However, we hesitate to read too much into these findings given that we did not obtain such findings on negative emotional reactivity or closure<sup>10</sup>. Nevertheless, facilitating reconstruing (rather than recounting) resulted in better coping outcomes in two studies.

### General Discussion

Two experiments examined the processes involved in social support interactions that facilitate adaptive (and maladaptive) coping. Specifically, participants who received support that facilitated reconstruing (vs. recounting) reported feeling less negative affect and as having achieved greater closure after discussing a distressing personal experience with a trained research assistant. Interestingly, receiving support that guided people to recount their experience led participants to feel worse than they did prior to the support interaction. Finally, these effects were generally obtained regardless of support-recipients' preferred styles of social support.

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<sup>10</sup> There was no main effect of support preference on any of the dependent variables,  $ps > .56$ .

Our findings contribute to the current debate on the beneficial effects of receiving social support on coping. Social support, by definition, promotes coping by providing resources necessary to cope with stressors or problems (Cohen, Gottlieb, & Underwood, 2000). Likewise, decades of work have documented the many benefits of social support—from reducing stress to promoting longevity (e.g., Cohen & Wills, 1985; House, Landis, & Umberson, 1988; Holt-Lunstad, Smith, & Layton, 2010; Uchino, 2006). However, a growing number of studies has begun to show that at times receiving support can lead to negative outcomes (e.g., Barrera, 1986; Bolger et al., 2000; Bolger & Amarel, 2007; Kaul & Lakey, 2003). We provide insight into the seemingly divergent effects of social support on coping by demonstrating that *how* support-providers provide support can shape recipients' coping outcomes.

Broadly, our findings converge with recent work that emphasizes the importance of studying *interpersonal* factors that shape important individual qualities (e.g., Feeney & Collins, 2015; Fitzsimons & Finkel, 2010; Fitzsimons, Finkel, & vanDellen, 2015; Rusbult, Finkel, & Kumashiro, 2009). Many scholars have recognized the importance of considering the interpersonal nature of coping, but psychological research to date has predominantly focused on how individuals effectively work through their negative experience and emotions in solitude (e.g., Aldao et al., 2010; Carver, Scheier, Weintraub, & Jagdish, 1989; Gross, 1998a, 1998b; Kross & Ayduk, 2008; Lazarus & Folkman, 1984). Researchers have been clear on this gap. For example, Pearlin and Schooler (1978) noted that “Social resources are represented in the interpersonal networks of which people are a part and which are potential source of crucial supports...the conditions under which they can be drawn upon...are all somewhat complex issues and are outside the scope of this paper.” Others have noted that: “Although most models of coping view the individuals as embedded in a social context, the literature on coping is

dominated by individualistic approaches that generally give short shrift to social aspects (Folkman & Moskowitz, 2004)” and that “there has been little empirical discussion of how social relationships influence intrapersonal emotion regulation in either healthy or depressed individuals (Marroquín, 2011).”

Given that people often turn to others in times of stress, examining the *interpersonal* factors that allow people to work through their negative experiences seems to be an important avenue for much needed research (see Marroquín, 2011; Zaki & Williams, 2013). To our knowledge, the present research represents the first laboratory experiments demonstrating the emotional and cognitive consequences of different coping strategies facilitated by others.

Finally, another novel aspect of our research is that the support interaction took place over the computer. In recent years there has been a dramatic increase in the number of computer-mediated support groups where people seek and share mental health information (Rainie & Packel, 2001). People also rely on their online social networks (e.g., Facebook) to provide and receive social support (Park et al., 2016). Factors such as convenience and easy access to a supportive network are likely to make online support interactions more appealing to some support-recipients. However, there may be factors crucial to even more effective social support that online support interactions lack. Given that the way people interact is quickly changing with the widespread use of social networking sites and online technology, investigating how support interactions unfold virtually seems to be an exciting and important new avenue for research.

#### *Limitations and Future Directions*

Despite our efforts to replicate support interactions in a naturalistic context, the constraints of a controlled laboratory setting might have limited the ecological validity of our studies. For instance, our participants received support devoid of nonverbal cues (e.g., facial

expressions, touch) that may be important ingredients of effective social support (e.g., Cohen, Janicki-Deverts, Turner, & Doyle, 2015). However, the controlled setting allowed us to focus on specific processes responsible for adaptive or maladaptive coping. Nevertheless, future studies should examine how reconstruing or recounting unfold in everyday support interactions (i.e., face-to-face), as well as their implications for coping.

Relatedly, given that social support exchanges often occur among close others (e.g., family, friends), future studies should examine how our findings apply to support interactions in close relationship contexts. We worked under the assumption that “effective support” is what enables the support-recipients to adaptively work through their emotions. But this in reality may conflict with the preference support-recipients may have at times—for example, to feel that their partners are responsible and available (Reis, Clark, & Holmes, 2004). Sometimes this could mean that support-providers provide support that recipients want (Cutrona, 1990; Gable, Gosnell, Maisel, & Starchman, 2012), even if the support provider and support recipient disagree about the meaning and helpfulness of a behavior intended to be supportive (Dunckel-Schetter, Blasband, Feinstein, & Herbert, 1992; Sarason, Sarason, & Pierce, 1990). For example, Rose (2002) found that while the tendency to “co-ruminate” (e.g., discussing and revising problems, focusing on negative feelings with others) promoted high-quality and close friendships, it also predicted poorer emotional adjustment. Thus, it is possible that providing recounting support may foster relationship closeness but end up undermining the recipients’ ability to adaptively work through their negative experience.

Finally, we do not suggest that reconstruing is always the best support strategy. Recent studies have shown that the effectiveness of support provision may depend on a variety of factors. For instance, Girme, Overall, and Simpson (2013) showed that the effectiveness of

visible and invisible support was moderated by recipients' distress level. Other research has shown that attempts to help individuals with low self-esteem reframe things in a positive light may backfire (Marigold, Cavallo, Holmes, & Wood, 2014). Thus, at times it may be advantageous for the support-providers to remain flexible in their support strategies (Bonanno, Papa, Lalande, Westphal, & Coifman, 2004).

### Conclusion

Providing support that encourages reconstruing of a negative experience leads recipients to feel better and achieve more closure. In contrast, providing support that guides recipients to recount their experience makes them feel worse and undermine closure. Our findings shed light on the link between social support and coping by demonstrating that how support-providers provide support can shape support-recipients' coping outcomes.

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*Table 3.1.* List of questions asked by research assistant while discussing distressing personal experience in Studies 1 and 2.

Condition	Questions
Reconstrue	<ol style="list-style-type: none"> <li>1. Looking at the situation, could you tell me why this event was stressful to you?</li> <li>2. Why do you think you reacted to (the event/the person) that way?</li> <li>3. Why do you think (the other person in your experience) react that way?</li> <li>4. Have you learned anything from this experience, and if so, would you mind sharing it with me?</li> <li>5. In the grand scheme of things, if you look at the “big picture,” does that help you make sense of this experience? Why or why not?</li> </ol>
Recount	<ol style="list-style-type: none"> <li>1. Can you tell me about what happened – what happened and what did you feel—from start to finish?</li> <li>2. What went through your mind during the exact moment?</li> <li>3. What stuck out the most at that moment?</li> <li>4. What did (he/she/they) say and do?</li> <li>5. How did this make you feel at that moment?</li> </ol>

Table 3.2. Vignettes describing various social support types in Study 2.

<b>Social Support Type</b>	<b>Vignette</b>
<b>Recount/Vent</b>	Mila D. grew up in a middle class family. After completing her college degree she got a job in a retail company. Recently Mila got into an argument with her co-worker at work. Feeling frustrated, Mila approaches her close friend who allows her to vent as much as she needs to and talk about how she feels.
<b>Reconstrue</b>	Elissa J. graduated from college a couple of years ago. After some short-term jobs, she finally found a place in a marketing company. Recently Elissa got into an argument with her colleague at work. Feeling annoyed, Elissa begins talking to her close friend who helps her gain new insight and put her problems in perspective.
<b>Distraction</b>	Irene C. completed her college degree two years ago and is currently working as an executive assistant in a large company. Lately she has been annoyed by her team-members at work. Feeling frustrated, Irene seeks out a close friend who helps take her mind off the team-members by talking to her about things other than work.
<b>Think only about the positives</b>	Anna K. has been working as an interior designer for a few years after college. Lately she has been feeling down about her heavy workload and conflict she has been experiencing with her colleagues. Anna tries to think about only the positive aspects and ignore the negative aspects in her life.
<b>Yoga and meditation</b>	Carol H. works as a research assistant in the economics department and also pursuing a graduate degree. Lately she has been overwhelmed with the amount of work and preparing for a difficult exam. Feeling stressed, Carol decides to practice yoga and meditation.

Figure 3.1. Positive mood as a function of receiving reconstrue vs. recount support in Study 2.

