

Coping in Context: The Role of Stress, Social Support, and Personality in Coping

Anita DeLongis and Susan Holtzman

University of British Columbia

ABSTRACT Personality and social relationships play an important role in almost every aspect of stress and coping. Daily process methods are particularly useful in elucidating how these factors might influence both responses to and outcomes of stress. Our work has linked both dimensions of personality, particularly the Big Five, and aspects of social relationships, particularly social support, to the likelihood of engaging in certain coping strategies and the effectiveness or outcomes of these coping strategies. In addition, we have found the effect of personality on coping and stress outcomes to vary by the situational context in which stress occurs. We review findings from our recent daily process studies of stress, coping, and social support. Further, we discuss the costs and benefits of the daily process methodology for addressing these questions, highlighting the clinical utility of findings gleaned with the use of this approach. Finally, we discuss future directions and applications of daily process methods to the study of stress and coping.

Anita DeLongis and Susan Holtzman, Department of Psychology, University of British Columbia.

We would like to acknowledge all members of our research team who have contributed to the research described in this article, including Carole Bishop, Martha Capreol, Judith Daylen, Dayna Lee-Baggley, Sarah Newth, Tess O'Brien, Eli Puterman, and Melady Preece. We would like to thank Jim Coyne, Dayna Lee-Baggley, Georgia Pomaki, and Eli Puterman for their helpful comments on an earlier draft. The research described here has been supported by grants to the first author from the Social Sciences and Humanities Research Council of Canada.

Correspondence may be addressed to Anita DeLongis, Department of Psychology, University of British Columbia, 2136 West Mall, Vancouver, British Columbia, Canada, V6T 1Z4. E-mail: adelongis@psych.ubc.ca

Journal of Personality 73:6, December 2005

© Blackwell Publishing 2005

DOI: 10.1111/j.1467-6494.2005.00361.x

Over the past 25 years, numerous studies have examined the impact of stress, and ways of coping with it, on health and well-being. Despite the resulting sizeable body of literature, there is a lack of consistency across studies regarding which coping strategies are adaptive and maladaptive for dealing with stressful events. Reasons for this include methodological differences across studies, as well as a lack of fit between methods and conceptual models of coping. Although there is a general consensus that the term *coping* refers to adaptively changing cognitive and behavioral efforts to manage psychological stress (e.g., Lazarus & Folkman, 1984), studying such changes has proven difficult. Cross-sectional methods, for example, provide only a static snapshot of a process that is dynamic and constantly in flux. Even methods that involve assessments at two or three time points hamper the identification of antecedents and consequences of coping behaviors. An alternative to these methods is the daily process method, with its intensive day-to-day monitoring of study variables as they change over time. Given this, the method is more consistent with current conceptualizations of coping as a dynamic process. Daily process methods also allow a fuller consideration of contextual factors that may be helpful in, first, understanding why people cope as they do and, second, predicting the effectiveness of coping efforts.

In the present article we summarize and integrate findings from our program of research on stress, coping, and social support among married couples, in which we have relied heavily on daily process methods. We describe findings from these studies to illustrate ways in which daily process methods can be used to address emerging questions in this area of inquiry. As we will discuss, this methodology can allow the examination of key issues about stress and coping as it unfolds both within individuals and couples.

A primary goal of our research has been to investigate the broader context in which stress and coping occurs. We have examined the extent to which three important contextual factors influence the likelihood of engaging in certain coping strategies, as well as the effectiveness and outcomes of these coping strategies: the nature of the stressful event, the social context in which coping occurs, and the personality of those involved (see Figure 1). For example, we have compared the coping of individuals across a variety of stressful situations and have found that characteristics of the stressor appear to play a particularly important role in determining coping responses (Lee-Bagley, Preece, & DeLongis, 2004; O'Brien & DeLongis, 1996).

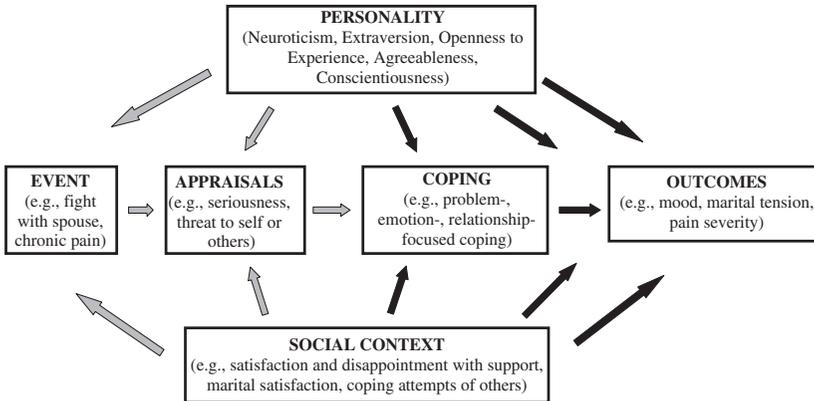


Figure 1

Diagram of conceptual framework guiding the research and analyses across the studies described.

In terms of the social context of coping, we have found that key dimensions are the extent to which the individual is satisfied or disappointed with daily support from close others. We also examine the role of background relationship characteristics, such as marital adjustment, in stress and coping. A third important context in which coping occurs is the personality of those involved. We have focused here on the Big Five dimensions of personality: Neuroticism, Extraversion, Openness to Experience, Agreeableness, and Conscientiousness (Costa & McCrae, 1985). The work summarized here has primarily examined the personality of the respondent, but at times we have considered the role of the spouse's personality as well.

One focus of our work has been on an examination of coping within the context of close relationships. Such relationships are a central arena in which stress both occurs and is coped with. Even when sources of stress originate outside the context of a close relationship, much of the individual's coping with that stress may be undertaken with the support of and in collaboration with a close other. "How was your day?" is the prototypical first question asked as family members arrive home, and coping efforts may be planned or adjusted in light of the response of others. Without an examination of how stress is coped with within the context of these close relationships, we are unlikely to ever fully understand why and how some people thrive in the face of stress while others flail. And, of course, the marital relationship is a primary relationship for many adults.

USING A DAILY PROCESS METHOD FOR STUDYING STRESS, COPING, AND SOCIAL SUPPORT

The daily process approach involves intensive, day-to-day monitoring of study variables, allowing researchers to view stress and coping close to their real-time occurrence (Tennen, Affleck, Armeli, & Carney, 2000). Despite the time-consuming, labor-intensive nature of this type of research, it offers numerous advantages to researchers. As has been suggested, perhaps the primary advantage of this methodology is that it allows a better mapping of methods onto conceptual models of stress and coping (Coyne & Gottlieb, 1996; Gottlieb & Wagner, 1991; Lazarus & DeLongis, 1983; Rutter, 1987). For example, the effects of using a particular coping strategy, or receiving support from one's social network, may be relatively short-lived, dissipating within days, hours, or even minutes after these events occur. An intensive daily process approach increases the chances that a researcher will effectively capture these rapidly fluctuating processes. In other words, the daily process approach matches or accommodates the temporal patterning of the stress process, accurately capturing critical sequences that would be distorted by being condensed by more molar strategies.

A second, more purely methodological advantage is that by reducing the recall error of various events and experiences, data collected via this method can have increased reliability and validity. For example, when participants are asked to report on events and experiences immediately or shortly after they occur, responses will be less likely to reflect respondents' personal theories of stability and change (Pearson, Ross, & Dawes, 1992). A significant weakness of cross-sectional and panel research is the heavy reliance on retrospective accounts of stress and coping processes. There is ample evidence that self-reports of long-past coping responses tend to be plagued by memory biases and distortions (DeLongis, Hemphill & Lehman, 1992). For example, in two studies examining the relationship between daily and retrospective measures of coping, retrospective measures were found to be poor reflections of daily reports, with only 26% and 37% shared variance between the two (Ptacek, Smith, Espe, & Raffety, 1994; Smith, Leffingwell, & Ptacek, 1999). What's more, the correspondence between daily record and retrospective measures of coping in these studies was *less* when the participant was experiencing *more* stress. One reason for this may be that respon-

dent's memories are clouded by their current knowledge of the outcomes or effects of their coping efforts. When outcomes are poor, they may recall higher levels of stress, lower support, or less efficacious coping efforts. Such distortions become less likely as the time frame for which respondents are expected to recall is reduced.

Finally, a between-person design may indicate group-level patterns that are not reflective of the pattern for a single individual. For example, a between-person positive association can emerge without a single individual demonstrating that positive association at the within-person level of analysis (Kenny, Kashly & Bolger, 1998; Tennen & Affleck, 1996).

Multilevel Modeling of Daily Process Data

Until recently, researchers with daily process data had relatively few tools at their disposal to capture the richness of their data; the ability to collect such data far exceeded the ability to reduce and analyze it. However, with the advent of multilevel modeling methods (e.g., Hierarchical Linear Modeling [HLM]; Bryk & Raudenbush, 1992), researchers now have statistical methods that can handle the non-independence in daily process data that arises from assessing the same individual across multiple time points. In addition, multilevel methods are ideally suited to handle the nonindependence of data collected from married couples (Raudenbush, Brennan, & Barnett, 1995). Previously, concerns about the data dependency between marital partners compelled many researchers to conduct separate analyses for wives and husbands or, alternatively, to conduct studies of marital phenomenon by sampling unrelated respondents (e.g., using only one member of a couple).

Multilevel modeling programs such as HLM allow researchers to ask unique questions about the effects of stress and coping variables on various outcomes of well-being. For example, rather than asking the question, "How do persons high on avoidance coping compare to those low on avoidance in terms of well-being?" we can ask, "What are the implications for well-being on days when an individual uses more or less avoidance than they *normally* do?" This latter question can be answered in HLM using "group centering" of predictor variables. This approach uses deviation scores for predictor variables, in which each person becomes his or her own control, diminishing possible effort effects that may confound

relations between coping scores and outcomes (see also, Aldwin, 1994; Vitaliano, Maiuro, Russo, & Becker, 1987).

Multilevel modeling techniques also allow us to simultaneously examine within- and between-person sources of variation (Barnett, Raudenbush, Brennen, & Pleck, 1995). That is, researchers can readily examine within-person associations among study variables, but also the extent to which relations among these variables can be generalized across individuals. This serves as a valuable tool when investigating the extent to which relations among stress and coping variables can be generalized across individuals or whether these relations differ as a function of between-person variables, such as personality factors. In the context of couple research, we can also address whether relations among variables *within* couples can be generalized *across* couples or whether we must qualify these relations by looking at between-couple factors, such as levels of marital satisfaction. The answers to such questions have the potential for greater clinical utility as we are addressing the implications for outcomes when there are relatively small shifts in stress, coping, and support levels across time.

PROGRAM OF RESEARCH

Here we present findings from two prospective, community-based projects on stress and coping among married couples. Although these studies involved both multiple phases and multiple methods of data collection, we will highlight the findings derived from the daily process component of each study. What follows is a brief description of the procedures and sample characteristics of each study. A more detailed description of the samples and procedures can be found elsewhere (DeLongis, Capreol, Holtzman, O'Brien, & Campbell, 2004; Holtzman, Newth, & DeLongis, 2004).

Given the many stressors facing couples living in stepfamilies, as well as the natural ups and downs inherent in any marital relationship, this population serves as an ideal arena in which to study stress and coping. In a study of stepfamilies, we followed 88 families having at least one child from a previous union (of either spouse) living in the home for more than 3 months of the year. In addition to an initial structured telephone interview and written questionnaire package, each member of the couple completed structured diaries twice daily for a period of 1 week, completing a variety of measures

related to stress, coping, and social support. Two years later, the families were recontacted and reinterviewed.

Findings from a study of stress and coping among rheumatoid arthritis patients are also summarized here. Rheumatoid arthritis (RA) is an incurable, chronic autoimmune disease associated with chronic pain, stiffness and inflammation of the joints, fatigue, and frequent mood changes. Given the often unpredictable and fluctuating nature of RA pain intensity, this population is particularly suited to a daily process approach to data collection. Seventy-three community-dwelling individuals suffering from RA participated in the study. Both patients and their spouses completed an initial background questionnaire, followed by a structured daily record twice daily for 1 week. At each of the 14 time points, patients reported levels of satisfaction with support, disappointment in support, coping, and pain since the last record entry.

THE ROLE OF COPING IN WELL-BEING: UNIQUE INSIGHTS FROM DAILY PROCESS DATA

Obtaining repeated assessments over a relatively brief period of time has allowed us to begin to answer key questions about stress and coping as it unfolds over time. For example, we have investigated ways in which coping outcomes may vary based on the specific time frame during which outcomes are assessed. We have also looked at ways in which coping effectiveness may differ based on the specific outcomes being examined. Lastly, we have attempted to tease apart the causal ordering of stress and coping variables when studied within their natural context.

Findings from our stepfamily project indicate that the effects of coping can vary from one day to the next, with some strategies having effects that are limited to same day, while others persist across days or even shift direction from one day to the next. These findings suggest that the apparent outcome and efficacy of a given coping strategy appears to depend upon the time frame adopted. For example, we asked each member of the couple to describe the most stressful situation they encountered at the end of each day and to rate how they coped with that situation.¹ By measuring coping

1. Coping was assessed using a revised version of the Ways of Coping scale (WOC; Folkman et al., 1986) and a briefer form of our Relationship-Focused

outcomes, such as negative mood and marital tension twice per day, we were able to examine ways in which outcomes of coping varied across time. On days when husbands reported a stressful situation, their empathic responding was associated with *increases* in same-day marital tension (O'Brien, 2000). However, lagged analyses revealed that empathic responding in husbands was associated with *lower* marital tension the *next* day. In contrast, the effects of empathic responding on marital tension among wives were consistent within and across days. That is, empathic responding from wives was associated with decreased marital tension both on days stress occurred and on the following day. These findings suggest that although coping may not always have immediate beneficial effects, and can even result in an elevation of marital tension or emotional distress initially, over time, such coping may lead to a favorable outcome (cf., Stone, Kennedy-Moore, & Neale, 1995). In this case, the apparently adverse short term effects of this strategy were compensated for by later positive effects.

Conversely, findings from our study of stepfamilies also suggest that some strategies may be associated with positive outcomes in the short run but may appear ineffective when longer-term outcomes are considered. For example, in the daily-record component of our study, we found that parents' use of interpersonal withdrawal to deal with family stressors was associated with lower levels of next-day tension with children (DeLongis & Preece, 2002). However, in a 2-year follow-up study of this sample, aggregated levels of interpersonal withdrawal during the early daily process phase were found to predict greater levels of parents' tension with children 2 years later (Preece & DeLongis, 2005). In this case, although withdrawal from family members appears to have the relatively immediate effect of decreasing interpersonal tension, it is perhaps not surprising that withdrawal was associated with a decline in relationship quality in the long run. Examining this process in both the short and long term, however, gives us insight into why a parent, particularly a stepparent, might choose to cope with family stress in a way that is ultimately destructive of close relationships. In behavioral terms, we can see the

Coping Scale (O'Brien & DeLongis, 1996). Factor analysis yielded eleven coping scales: relationship-focused coping, compromise, interpersonal withdrawal, escape avoidance, self-blame, problem solving, confrontation, positive reappraisal, self-care, support seeking, and distancing (Lee-Bagley et al., 2004).

coping has been negatively reinforced by the immediate reduction in tension. Taken together, such findings suggest that an exclusive focus on either short- or long-term outcomes can be misleading and that studies combining both may facilitate building a much-needed fuller picture of coping effectiveness.

Additionally, coping strategies may appear more or less effective depending upon the specific outcome under investigation. For example, we found that using compromise as a way to deal with family stress was associated with increased next-day affection and support from parents' own children but was unrelated to affection and support from their step-children (DeLongis & Preece, 2002). These results suggest that parents' own children tend to reward their parents with increased affection for using compromise when dealing with family stressors. However, this does not appear to be the case for parents and their stepchildren. In sum, the effectiveness of compromise as a way of coping with family stress may be highly dependent on the specific outcome considered.

One common criticism of the coping literature is its failure to attend to the bi-directional nature of coping and outcomes (Coyne & Racioppo, 2000). In order to illustrate this dilemma, and how daily process methods can help address the issue, we examine the context of coping with chronic pain. The findings of a number of studies indicate that patients who deal with their pain by engaging in wishful thinking have poorer physical and psychological well-being (Manne & Zautra, 1989; Vitaliano, Russo, Carr, Maiuro, & Becker, 1985). However, given the correlational nature of this data, it is unclear whether wishful thinking actually leads to poorer well-being or whether individuals who are worse off emotionally and physically engage in more wishful thinking because of their poor health. Participants in our study reported on levels of pain, negative mood, and ways of coping with pain twice daily for 1 week.² We specified models predicting evening levels of pain intensity using morning levels of coping, controlling for morning levels of pain and negative mood (Newth & DeLongis, 2004). Results from this study provide support for models arguing that psychological coping

2. Coping in this study was assessed using the revised Ways of Coping scale (WOC-R; Folkman et al., 1986). A factor analysis of the coping data revealed four primary coping factors: cognitive reframing, stoic distancing, emotional expression, and playful problem solving (Newth & DeLongis, 2004).

strategies can have a significant impact on health and well-being. For example, we found that greater use of cognitive reframing in the morning was associated with decreases in pain later that evening. As we will discuss later, coping was also found to interact with personality to predict further variance in pain outcomes.

THE CONTEXT OF COPING

Even when research is summed across studies examining coping among similar populations or similar types of stressors, one rarely emerges with a clear idea of which coping strategies should be considered adaptive or maladaptive. As we have suggested, inconsistencies across studies may be due in part to the different timeframes in which coping outcomes are assessed. Others have argued that an overreliance on retrospective methods has contributed to the inconclusive and contradictory findings often found in coping research (Smith et al., 1999). The failure of coping researchers to reach a consensus regarding the way in which this construct should be defined and measured may also account for inconsistencies in findings across studies (Somerfield, 1997; Tennen et al., 2000). Among the reasons for these inconsistent findings is that the use and adaptiveness of a particular coping strategy appears to vary depending upon contextual factors, including the nature of the stressor, the social context in which coping occurs, and the personality of the individual under examination. What follows is a discussion of how these three contextual factors impact the stress and coping process.

Situational Specificity of Coping

The particular characteristics of a stressful situation appear to influence both coping choice and coping effectiveness (Compas, Malcarne, & Fondacaro, 1988; Lazarus & DeLongis, 1983). A daily process methodology is particularly valuable in this case, as a given individual can be studied across time in a variety of stressful contexts. In general, evidence suggests that most individuals systematically vary their coping efforts and choices to fit a given stressor (Compas, Forsythe, & Wagner, 1988). General coping styles aggregated over time tend to be poorly correlated with the ways in which one copes in a specific situation (Coyne & Racioppo, 2000). That is, researchers or clinicians cannot accurately predict how an individual

will cope with any one specific stressor by relying on the average way in which the same individual copes across a variety of situations over time. An individual may engage in moderately high levels of a given coping strategy over time but not use this strategy at all when coping with a given type of stressor. Averaging coping responses across multiple situations, therefore, obscures important information about how coping is related to well-being under specific and well-defined circumstances.

For example, we have examined differences in coping responses as a function of two prevalent types of family stressors: marital conflict and children's misbehavior. Stressor type was a significant predictor of the likelihood of engaging in various coping strategies (Lee-Baggeley et al., 2004). When coping with marital conflict (as compared to child misbehavior), participants were more likely to report engaging in relationship-focused coping, compromise, interpersonal withdrawal, and self-blame. They were also less likely to report engaging in confrontation. In sum, in dealing with a marital stressor, our results suggest that participants were more likely to take an egalitarian perspective by trying to see their spouse's perspective, offering support, and acknowledging their own contributions to the conflict. Further, as compared to their coping with marital conflict, participants were less likely to report both accepting blame for their child's misbehavior and trying to understand their child's point of view or coming to a mutually beneficial resolution of the conflict. This was likely due to the more hierarchical nature of the parent-child relationship as compared to the spousal relationship.

The effectiveness of any one coping strategy and its impact on well-being may also vary from situation to situation. This raises the importance of an appropriate match between a chosen coping strategy and the situationally specific demands of a stressor. For example, we (Newth & DeLongis, 2004) and others (Aldwin & Revenson, 1987) have found positive reappraisal to be an effective coping strategy associated with positive outcomes. However, Wethington and Kessler (1991) noted that when the stressful situation calls for some form of action to be taken, the use of positive reappraisal alone is often related to psychological *maladjustment*. Likewise, Aldwin (1994) pointed out that emotion-focused coping is more effective when coping with a situation that involves harm or loss, whereas problem-focused coping is more effective when coping with a situation that is an anticipated stressor. In our research, we

have found that if parents are to manage family stress successfully they must vary their responses depending upon whether they are dealing with a problem involving their own child or stepchild. There are many ways in which the stepparent-stepchild relationship is unlikely ever to be comparable to the parent-child relationship, with presence from birth likely being just one key factor. Our data suggests that there is a greater resilience in the parent-from-birth relationship and that a stepparent who ignores such differences is likely doomed to failure. For example, while compromise appears to be quite effective in reducing tension with children, it appears to be ineffective in dealing with stepchildren. With stepchildren, withdrawal seems to be a more effective short-term response to misbehavior. That being said, it appears equally important to revisit the situation once both parties have cooled down, given our findings that persistent use of withdrawal is associated with long-term deteriorations in the stepparent-stepchild relationship (Preece & DeLongis, 2005).

THE SOCIAL CONTEXT OF COPING WITH STRESS

Over the past 30 years, an impressive body of research has emerged demonstrating the beneficial effects of social support on well-being across a diverse array of healthy and ill populations (Coyne & DeLongis, 1986; Russell & Cutrona, 1991; Uchino, Uno, & Holt-Lunstad, 1999). Despite volumes of research showing a positive relationship between support and well-being, we still know relatively little about the mechanisms through which support influences psychological and physical health. One possibility is that support is effective in enhancing well-being because it acts as coping assistance (O'Brien & DeLongis, 1997; Thoits, 1986). That is, global perceptions of support availability, as well as perceptions of support attempts from close others, may influence the use of specific coping strategies, as well as the effectiveness of strategies employed (Carpenter & Scott, 1992).

Social relationships may influence ways of coping in a number of ways. One way is through the use of social referencing (Bandura, 1986). That is, people turn to others for a sense of what is considered to be appropriate coping in a given situation. Social relationships also influence coping through the direct provision of information about the likely efficacy of particular coping strategies (Carpenter &

Scott, 1992). Generally speaking, studies suggest that those individuals who report greater satisfaction with support also report greater use of adaptive ways of coping with stressful situations (e.g., Manne & Zautra, 1989). For example, findings from our rheumatoid arthritis project demonstrated an association between daily satisfaction with support and higher use of cognitive reframing as a way of dealing with pain (Holtzman et al., 2004). This way of coping was associated with lower levels of pain severity over the course of the day. Results from our study also suggested that when respondents felt supported, they used a greater variety of coping strategies. This may be because support providers encouraged patients' efforts to cope, which may have served both to increase satisfaction with support and to increase coping efforts.

Given this, it appears that social networks can act as an invaluable coping resource. At the same time, however, research suggests that social networks can serve as an impediment to adaptive coping. Although support attempts are usually well intentioned, these attempts are not always perceived as helpful by the recipient (Dakof & Taylor, 1990). Disappointment with support may arise due to a perceived lack of support, a failure of support attempts to match the needs of the recipient, or to more mal-intended interactions with support providers, such as criticism or avoidance (Revenson, 1990). In a study of recently bereaved respondents, it was found that the receipt of a negative response from members of the social network was predictive of three aspects of the respondents' coping: (a) reduced *desire* to cope over time, (b) reduced *effort* put into coping over time, and (c) reduced *effectiveness* of the coping strategy when it was used (DeLongis, Silver, & Wortman, 1986; Lehman et al., 1999).

Our research, as well as others (e.g., Manne et al., 2003), has also revealed the effects of negative social interactions on the use of maladaptive coping strategies. For example, on days when wives reported being disappointed with their husband's response to stressful family situations, the wives tended to cope by using more wishful thinking and confrontation (O'Brien, 2000). In turn, the use of these coping strategies was associated with increases in marital tension, family tension, and psychological distress over the course of the day, even after controlling for prior levels of these variables. We have also found that stepparents who reported low levels of support from family and friends were more inclined to engage in ruminative coping (Morris, O'Brien, DeLongis, & Campbell, 1995). The use of

ruminative coping was associated with higher levels of depression at the follow-up interview two years later. These findings suggest that when support is lacking from significant others, or when one is dissatisfied with support provided, individuals may be more likely to engage in maladaptive or counterproductive modes of coping that have negative repercussions for their own well-being and for their marital and family relationships.

The role of coping in perceived social support. In addition to the role of social support in shaping subsequent coping responses, our findings suggest that coping responses can play a role in subsequent support processes. For example, we found a significant relationship between morning use of distancing to deal with pain and greater disappointment in support later that evening (Holtzman et al., 2004). This suggests that certain ways of dealing with stress may influence levels of satisfaction with support received. In this particular instance, it appears that by distancing oneself from one's pain, one might not provide sufficient cues to one's social network that one is in pain and in need of support. If potential support providers do not receive cues indicating the need to provide support, they may fail to provide much-needed support. Perhaps other coping strategies that involve more direct communication of distress and needs for support might have increased the likelihood that a patient received the support they desired, thereby increasing levels of satisfaction with support. Findings from our stepfamily project have also yielded evidence for an influence of coping on perceptions of support. For example, wives' use of confrontation in dealing with family stress was, not surprisingly, subsequently associated with increases in disappointment with husbands' responses (O'Brien, 2000).

These findings suggest the existence of a vicious coping and support cycle. That is, the use of negative, hostile coping strategies may elicit unsatisfactory support, which may in turn elicit further maladaptive coping responses (Holtzman et al., 2004). Such a pattern could easily be expected to be associated with poor well-being, particularly depression (Maruyama, 1963). Depressed persons are more likely to engage in more negative, emotion-focused coping strategies (e.g., venting emotions) and are more likely to experience dissatisfaction with support from their social networks (Coyne & Downey, 1991). A pattern might emerge such that the effects of

maladaptive coping and associated disappointment in support can have serious implications for an individual's well-being.

On the other hand, certain ways of coping seem to set up more positive or adaptive cycles of interactions with one's social network, as well as bolster more positive well-being. For example, we have found that coping attempts that focus on maintaining relationships in times of marital and parenting stress (e.g., empathic responding) are associated with less disappointment with spouse responses. Not surprisingly, we have also found that empathic coping is associated with decreases in evening levels of marital and family tension (controlling for prior levels of these dependent variables) when trying to manage difficulties a spouse, child, or stepchild (O'Brien, 2000).

The role of the Big Five personality dimensions in coping responses. Although situational factors appear to explain the lion's share of variance in coping responses (O'Brien & DeLongis, 1997; Parkes, 1986; Terry, 1994), personality clearly plays an important role in almost every aspect of the stress and coping process. It has been linked to the likelihood of stressful events occurring (Bolger & Schilling, 1991; Bolger & Zuckerman, 1995), the appraisal of an event as stressful (Gunthert, Cohen, & Armeli, 1999), the likelihood of engaging in certain coping strategies (David & Suls, 1999; McCrae & Costa, 1986; O'Brien & DeLongis, 1996; Watson & Hubbard, 1996), and the effectiveness or outcomes of these coping strategies (Bolger & Zuckerman, 1995; Gunthert et al., 1999).

One model of personality that has been found particularly useful in understanding coping is the Five-Factor Model, a broad-based taxonomy of personality dimensions that arguably represent the minimum number of traits needed to describe personality (Costa & McCrae, 1985). These personality dimensions are Neuroticism (N), Extraversion (E), Openness (O), Agreeableness (A), and Conscientiousness (C). However, research examining the role of personality in coping strategy use has been focused on the role of N and E, resulting in only limited study of the other dimensions. Studies that have examined all five traits suggest that O, A, and C may also add meaningfully to our understanding of the stress and coping process (David & Suls, 1999; Hooker, Frazier, & Monahan, 1994; Watson & Hubbard, 1996). Further, it has long been recognized that the behavioral expression of personality traits may differ depending upon situational factors (Magnussen & Endler, 1977). However, the

extent to which the role of personality in coping varies by situation has remained relatively unexamined in the coping literature. Findings from our recent studies have examined the role of the Big Five traits in coping, both in terms of direct effects and interactions with dimensions of stressful situations. Daily process data is uniquely suited to investigating person-by-situation interactions, as it allows an examination of the person's coping across a variety of naturally occurring stressful contexts.

Neuroticism (N). Not surprisingly, findings from our studies, and those of others, paint a picture of those high on N as poor copers who choose ineffective strategies that may serve to exacerbate stressful situations. In a study examining coping with a broad set of stressors, we found those higher on N to report lower levels of problem solving, and higher levels of confrontation, escape avoidance, and self-blame (O'Brien & DeLongis, 1996). Consistent with this, in coping with family stressors, those higher on N reported higher levels of interpersonal withdrawal, escape avoidance, and self-blame (Lee-Baggeley et al., 2004) as compared to those lower on N. Given their higher levels of negative affect, it is not surprising that we have found that those higher on N tend to cope via emotional expression (Newth & DeLongis, 2004).

However, those high on N are not necessarily rigid copers, nor do they necessarily lack the ability to cope using a given adaptive strategy. Rather, they appear to choose the wrong strategies, given the particular situation with which they are coping. Across several studies, we have found evidence that, like others, those high in N do vary their coping across situations. However, for these individuals, our pattern of findings suggests that their high levels of negative emotions impede their ability to choose appropriate coping strategies. In particular, those higher on N appear to cope particularly poorly with stress in close relationships. Evidence from our studies suggests that they increase their use of maladaptive strategies when someone close to them is involved. For example, we found that those high on N tend to employ more confrontive coping when the stressor involves someone close to them, as compared to when the stressor involves someone more distant (O'Brien & DeLongis, 1996). Alternatively, they appear to increase their use of empathic responding when the stressful situation involves someone distant (O'Brien & DeLongis, 1996).

Extraversion (E). Consistent with the findings of retrospective research on coping (McCrae & Costa, 1986), our findings suggest that individuals higher on E appear to be effective and active copers in that they are more likely to use a variety of ways of coping and to do so effectively (Lee-Bagley et al., 2004; Newth & DeLongis, 2004), including cognitive reframing and active problem solving. In one study we found that those higher on E were more likely to benefit from engaging in cognitive reframing in comparison to those lower on E.

In coping with family stressors, those higher on E were more likely to report engaging in compromise and accepting responsibility (Lee-Bagley et al., 2004). Consistent with this, those higher on E tended to report that they responded empathically to their children's misbehavior. However, perhaps related to the tendency for those higher on E to be interpersonally dominant, they were less likely to report responding empathically to their spouse during marital conflict. In fact, those higher on E were more likely to report using confrontation, interpersonal withdrawal, and self-blame to cope with marital conflict than with child misbehavior (Lee-Bagley et al., 2004).

Openness to Experience (O). In contrast to the findings of McCrae and Costa (1986), looking at retrospective accounts of coping, we have found higher levels of O to be associated with lower levels of cognitive reframing in our daily process study of coping with pain (Newth & DeLongis, 2004). Whether these differences are due to situational specificity in the effects of personality on coping or are due to methodological differences between the studies is unclear. However, we have found cognitive reframing to vary across different types of stressors and have found level of O to interact with type of stressor in predicting coping use (O'Brien & DeLongis, 1996). Consistent with expectations that those higher on O would be adaptive, flexible copers able to engage with others and the world around them, we found those higher on O tended to report lower levels of distancing in coping with family stress (Lee-Bagley et al., 2004). Further, those with higher scores on O reported relatively more empathic responding in stressful situations involving close others as compared to with noninterpersonal stressors (O'Brien & DeLongis, 1996).

Agreeableness (A). Given the interpersonal significance of A as a personality trait, it should perhaps come as no surprise that A is

most strongly associated with ways of coping that are more communal in nature. In one study, those higher on A reported less confrontive coping and more support seeking than those lower on A (O'Brien & DeLongis, 1996). In another study, those higher on A varied their use of empathic responding across stressors, using more during marital conflict and less in response to a child's misbehavior. They also varied their use of confrontation across family stressors, increasing confrontation in response to a child's misbehavior and decreasing their use of confrontation in response to a marital conflict. Consistent with Hooker et al. (1994), we have found that those higher on A were less likely to report engaging in self-blame (Lee-Baggeley et al., 2004). Interestingly, in a study examining coping with pain (Newth & DeLongis, 2004), we found no evidence that A was related to coping responses, suggesting that the role of A in coping may be limited primarily to interpersonal stressors.

Conscientiousness (C). Across two studies (Lee-Baggeley et al., 2004; O'Brien & DeLongis, 1996), we have found those higher on C to report engaging in more empathic responding than do those lower on C. Not surprisingly, given that high C individuals are characterized as hard-working and reliable, we found that stoic distancing was utilized at higher rates by those high in C, perhaps in an attempt to facilitate task-directed efforts and minimize the interference of stress (Newth & DeLongis, 2004). Those higher on C also reported less escape avoidance and self-blame than those lower on C in coping with family stressors (Lee-Baggeley et al., 2004). However, C interacted with stressor type in the prediction of self-blame. Specifically, those higher on C were more likely to report using self-blame to cope with a marital stressor and less likely to report using self-blame to cope with child misbehavior (Lee-Baggeley et al., 2004). Compared to those with lower scores on C, those with higher scores reported relatively more planful problem solving in coping with noninterpersonal stressors than in stressful interpersonal situations (O'Brien, 2000).

In sum, evidence examining coping across an array of stressful situations suggests that the Big Five dimensions of personality interact with stressor type to elicit coping responses, and that people vary their coping across situations to meet the needs of the situation. Some (e.g., those higher on O) may vary their behavior more adaptively than others (e.g., those higher on N). However, it appears that we need to examine coping both across situations and within

persons if we are to increase understanding of the role of personality in stress, coping, and adaptation.

CONCLUSIONS

Daily process methods hold a great deal of promise for researchers interested in investigating the dynamic interplay of stress and coping variables over time. This approach is highly suited to the examination of within- and between-person differences in the effects of stress, as well as investigation of stress moderators. The primary focus of the research program described here has been to examine stress within the broader context of situational, social, and personality factors that may influence the use and effectiveness of various ways of coping with stress. Although few would argue that coping operates in a vacuum, immune to influences from one's environment, we have described findings from our studies to demonstrate how daily process methods allow researchers to examine contextual factors in greater complexity. Our findings suggest that the specific nature of the stressor, levels of satisfaction and disappointment with support, how others involved in the stressful situation are coping, as well as the personality of both the individual and their significant other may serve as fruitful avenues of research in this area.

Although these contextual factors may have a direct impact on well-being, our findings suggest that when an individual is coping with stress, contextual factors often exert an indirect effect on well-being, by influencing the choices and effectiveness of ways of coping. For example, in a study of patients with RA, we did not find evidence that social support exerted a significant direct effect on levels of pain severity over the course of the day. Rather, our findings suggested that levels of satisfaction and dissatisfaction with support played a role in determining ways of coping and these ways of coping were then related to changes in pain severity over time. By examining individuals across time in a variety of naturally occurring stress contexts, we have been able to study the extent to which the use of various coping strategies depend upon the nature of the situation, the personality of the individual, and the interaction between person and situational factors.

In addition, our findings demonstrate how daily process methods can be combined with more conventional methods to examine both

the short- and long-term effects of stress and coping. For example, findings from our research on couples living in stepfamilies suggest that coping strategies associated with positive outcomes in the short term may actually be detrimental with respect to more long-term outcomes of health and well-being (DeLongis & Preece, 2002), suggesting the need for studies to combine daily process with longer-term longitudinal components. Finally, if we are to fully understand the effect of coping, we need to consider a broader array of outcomes than the emotional and physical well-being of the individual. Our findings suggest that what is beneficial for one family member or within the context of one relationship may not necessarily be beneficial, and may even be damaging, for other individuals or within the context of other relationships.

REFERENCES

- Aldwin, C. M. (1994). *Stress, coping, and development*. New York: Guildford Press.
- Aldwin, C. M., & Revenson, T. A. (1987). Does coping help? A re-examination of the relation between coping and mental health. *Journal of Social and Personality Psychology*, **53**, 337–348.
- Bandura, A. (1986). *Social foundations of thought and action: A social cognitive theory*. Upper Saddle River, NJ: Prentice-Hall, Inc.
- Barnett, R. C., Raudenbush, S. W., & Brennan, R. T., Pleck, J. H. (1995). Change in job and marital experiences and change in psychological distress: A longitudinal study of dual-earner couples. *Journal of Personality & Social Psychology*, **69**, 839–850.
- Bolger, N., & Schilling, E. A. (1991). Personality and the problems of everyday life: The role of neuroticism in exposure and reactivity to daily stressors. *Journal of Personality*, **59**, 355–396.
- Bolger, N., & Zuckerman, A. (1995). A framework for studying personality in the stress process. *Journal of Personality & Social Psychology*, **69**, 890–902.
- Bryk, A. S., & Raudenbush, S. W. (1992). *Hierarchical linear models*. Newbury Park: Sage.
- Carpenter, B. N., & Scott, S. M. (1992). Interpersonal aspects of coping. In B. N. Carpenter (Ed.), *Personal coping: Theory, research, and application* (pp. 93–109). Westport, CT: Praeger Publishers.
- Compas, B. E., Forsythe, C. J., & Wagner, B. M. (1988). Consistency and variability in causal attributions and coping with stress. *Cognitive Therapy and Research*, **12**, 305–320.
- Compas, B. E., Malcarne, B. L., & Fondacaro, K. M. (1988). Coping with stressful events in older children and young adolescents. *Journal of Consulting and Clinical Psychology*, **56**, 405–411.

- Costa, P. T., Jr., & McCrae, R. R. (1985). *The NEO Personality Inventory Manual*. Odessa, FL: Psychological Assessment Resources.
- Coyne, J. C., & DeLongis, A. (1986). Going beyond social support: The role of social relationships in adaptation. *Journal of Consulting and Clinical Psychology*, **54**, 454–460.
- Coyne, J. C., & Downey, G. (1991). Social factors and psychopathology: Stress, social support, and coping processes. *Annual Review of Psychology*, **42**, 401–425.
- Coyne, J. C., & Gottlieb, B. H. (1996). The mismeasure of coping by checklist. *Journal of Personality*, **64**, 959–991.
- Coyne, J. C., & Racioppo, M. W. (2000). Never the twain shall meet? Closing the gap between coping research and clinical intervention research. *American Psychologist*, **55**, 655–664.
- Dakof, G. A., & Taylor, S. E. (1990). Victims' perceptions of social support: What is helpful from whom? *Journal of Personality and Social Psychology*, **58**, 80–89.
- David, J. P., & Suls, J. (1999). Coping efforts in daily life: Role of big five traits and problem appraisals. *Journal of Personality*, **67**, 265–294.
- DeLongis, A., Capreol, M. J., Holtzman, S., O'Brien, T. B., & Campbell, J. (2004). Social support and social strain among husbands and wives: A multilevel analysis. *Journal of Family Psychology*, **18**, 470–479.
- DeLongis, A., Hemphill, K. J., & Lehman, D. R. (1992). A structured diary methodology for the study of daily events. In F. B. Bryant, J. Edwards, L. Heath, E. J. Prosanac, & R. S. Tindale (Eds.), *Methodological issues in applied social psychology* (pp. 83–108). New York: Plenum Press.
- DeLongis, A., & Preece, M. (2002). Emotional and relational consequences of coping in step-families. *Marriage and Family Review*, **34**, 115–138.
- DeLongis, A., Silver, R. C., & Wortman, C. B. (1986, August). The interpersonal implications of personal coping strategies among parents who have lost a child. Paper presented at the annual meeting of the American Psychological Association, Washington, DC.
- Folkman, S., Lazarus, R. S., Gruen, R. J., & DeLongis, A. (1986). Appraisal, coping, health status, and psychological symptoms. *Journal of Personality and Social Psychology*, **50**, 571–579.
- Gottlieb, B. H., & Wagner, F. (1991). Stress and support processes in close relationships. In J. Eckenrode (Ed.), *The social context of coping* (pp. 165–188). New York: Plenum Press.
- Gunthert, K. C., Cohen, L. H., & Armeli, S. (1999). The role of neuroticism in daily stress and coping. *Journal of Personality & Social Psychology*, **77**, 1087–1100.
- Holtzman, S., Newth, S., & DeLongis, A. (2004). The role of social support in coping with daily pain among patients with Rheumatoid Arthritis. *Journal of Health Psychology*, **9**, 677–695.
- Hooker, K., Frazier, L. D., & Monahan, D. J. (1994). Personality and coping among caregivers of spouses with dementia. *Gerontologist*, **34**, 386–392.

- Kenny, D., Kashy, D., & Bolger, N. (1998). Data analysis in social psychology. In D. Gilbert & S. Fiske (Eds.), *The handbook of social psychology* (Vol. 2, 4th ed., pp. 233–265). New York: McGraw-Hill.
- Lazarus, R. S., & DeLongis, A. (1983). Psychological stress and coping in aging. *American Psychologist*, **38**, 245–254.
- Lazarus, R. S., & Folkman, S. (1984). *Stress, appraisal, and coping*. New York: Springer.
- Lee-Baggley, D., Preece, M., & DeLongis, A. (2004). Coping with interpersonal stress: Role of Big Five traits. Manuscript under review.
- Lehman, D. R., Wortman, C. B., Haring, M., Tweed, R. G., de Vries, B., & DeLongis, A., et al. (1999). In B. de Vries (Ed.), *Recovery from the perspective of the bereaved: Personal assessments and sources of distress and support*. New York: Spring Publishing.
- Magnussen, D., & Endler, N. S. (Eds.) (1977). *Personality at the crossroads: Current issues in interactional psychology*. Hillsdale, NJ: Erlbaum.
- Manne, S., Ostroff, J., Sherman, M., Glassman, M., Ross, S., & Goldstein, L., et al. (2003). Buffering effects for family and friend support on associations between partner unsupportive behavior and coping among women with breast cancer. *Journal of Social and Personal Relationships*, **20**, 771–792.
- Manne, S. L., & Zautra, A. J. (1989). Spouse criticism and support: Their association with coping and psychological adjustment among women with rheumatoid arthritis. *Journal of Personality and Social Psychology*, **56**, 608–617.
- Maruyama, M. (1963). Second cybernetics: Deviation-amplifying mutual causal processes. *American Scientist*, **51**, 164.
- McCrae, R. R., & Costa, P. T., Jr. (1986). Personality, coping, and coping effectiveness in an adult sample. *Journal of Personality*, **54**, 385–405.
- Morris, J., O'Brien, T. B., DeLongis, A., & Campbell, J. D. (1995, August). Coping and social support in step-families. Paper presented at the annual meeting of the American Psychological Association, New York.
- Newth, S., & DeLongis, A. (2004). Individual differences, mood and coping with chronic pain in rheumatoid arthritis: A daily process analysis. *Psychology and Health*, **19**, 283–305.
- O'Brien, T. B. (2000). Correlates and consequences of relationship-focused coping: A within-couples examination. Unpublished doctoral dissertation, University of British Columbia, Vancouver, Canada.
- O'Brien, T. B., & DeLongis, A. (1996). The interactional context of problem-, emotion-, and relationship-focused coping: The role of the Big Five personality factors. *Journal of Personality*, [Special Issue: Personality and Coping], **64**, 775–813.
- O'Brien, T. B., & DeLongis, A. (1997). Coping with chronic stress: An interpersonal perspective. In B. H. Gottlieb (Ed.), *Coping with chronic stress* (pp. 161–190). New York: Plenum Publishing Corporation.
- Parkes, K. R. (1986). Coping in stressful episodes: The role of individual differences, environmental factors, and situational characteristics. *Journal of Personality & Social Psychology*, **51**, 1277–1292.
- Pearson, R. W., Ross, M. A., & Dawes, R. M. (1992). Personal recall and the limits of retrospective questions in surveys. In J. Tanur (Ed.), *Questions about*

- questions: *Inquiries into the cognitive bases of surveys* (pp. 65–94). New York: Russell Sage Foundation.
- Preece, M. (2000). Exploring the step gap: How parents' ways of coping with daily family stressors impact stepparent-stepchild relationship quality in stepfamilies. Unpublished doctoral dissertation, University of British Columbia, Vancouver, Canada.
- Preece, M., & DeLongis, A. (2005). A contextual examination of stress and coping processes in stepfamilies. In T. A. R. Revenson & K. Kayser (Eds.), *Coping among couples* (pp. 51–69). Washington, DC: American Psychological Association Press.
- Ptacek, J. T., Smith, R. E., & Espe, K., Raffety, B. (1994). Limited correspondence between daily coping reports and retrospective coping recall. *Psychological Assessment*, *6*, 41–49.
- Raudenbush, S. W., Brennan, R. T., & Barnett, R. C. (1995). A multivariate hierarchical model for studying psychological change within married couples. *Journal of Family Psychology*, *9*, 161–174.
- Revenson, T. A. (1990). Social support processes among chronically ill elders: Patient and provider perspectives. In H. Giles & N. Coupland (Eds.), *Communication, health and the elderly* (pp. 92–113). Manchester, UK: Manchester University.
- Rutter, M. (1987). Psychosocial resilience and protective mechanisms. *American Journal of Orthopsychiatry*, *57*, 316–331.
- Russell, D. W., & Cutrona, C. E. (1991). Social support and depressive symptoms among the elderly: Test of a process model. *Psychology and Aging*, *6*, 190–201.
- Smith, R. E., Leffingwell, T. R., & Ptacek, J. T. (1999). Can people remember how they coped? Factors associated with discordance between same-day and retrospective reports. *Journal of Personality and Social Psychology*, *76*, 1051–1061.
- Somerfield, M. R. (1997). The utility of systems models of stress and coping for applied research: The case of cancer adaptation. *Journal of Health Psychology*, *2*, 133–152.
- Stone, A. A., Kennedy-Moore, E., & Neale, J. M. (1995). Association between daily coping and end-of-day mood. *Health Psychology*, *14*, 341–349.
- Tennen, H., & Affleck, G. (1996). Daily processes in coping with chronic pain: Methods and analytic strategies. In M. Zeidner & N. Endler (Eds.), *Handbook of coping: Theory, research, applications* (pp. 151–177). Oxford, UK: John Wiley & Sons.
- Tennen, H., Affleck, G., Armeli, S., & Carney, M. A. (2000). A daily process approach to coping. *American Psychologist*, *55*, 626–636.
- Terry, D. J. (1994). Determinants of coping: The role of stable and situational factors. *Journal of Personality & Social Psychology*, *66*, 895–910.
- Thoits, P. A. (1986). Social support as coping assistance. *Journal of Consulting and Clinical Psychology*, *54*, 416–423.
- Uchino, B. N., Uno, D., & Holt-Lunstad, J. (1999). Social support, physiological processes, and health. *Current Directions in Psychological Science*, *8*, 145–148.

- Vitaliano, P. P., Maiuro, R. D., & Russo, J., Becker, J. (1987). Raw versus relative scores in the assessment of coping strategies. *Journal of Behavioral Medicine*, **10**, 1–18.
- Vitaliano, P. P., Russo, J., Carr, J. E., Maiuro, R. D., & Becker, J. (1985). The ways of coping checklist: Revision and psychometric properties. *Multivariate Behavioral Research*, **20**, 3–26.
- Watson, D., & Hubbard, B. (1996). Adaptational style and dispositional structure: Coping in the context of the five-factor model. *Journal of Personality*, **64**, 737–774.
- Wethington, E., & Kessler, R. C. (1991). Situations and processes of coping. In J. Eckenrode (Ed.), *The social context of coping* (pp. 13–29). New York: Plenum Press.