Personality and Coping

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Abstract

Personality psychology addresses views of human nature and individual differences. Biological and goal-based views of human nature provide an especially useful basis for construing coping; the five-factor model of traits adds a useful set of individual differences. Coping—responses to adversity and to the distress that results—is categorized in many ways. Meta-analyses link optimism, extraversion, conscientiousness, and openness to more engagement coping; neuroticism to more disengagement coping; and optimism, conscientiousness, and agreeableness to less disengagement coping. Relations of traits to specific coping responses reveal a more nuanced picture. Several moderators of these associations also emerge: age, stressor severity, and temporal proximity between the coping activity and the coping report. Personality and coping play both independent and interactive roles in influencing physical and mental health. Recommendations are presented for ways future research can expand on the growing understanding of how personality and coping shape adjustment to stress.

Contents

INTRODUCTION

This review addresses personality and coping. By strong implication, this topic also extends to the outcomes that may follow from either functional or dysfunctional coping. Taken together, the various literatures that might be brought to bear on this topic are both numerous and large. Personality, for example, has been approached in quite different ways by many theorists (see, e.g., Carver & Scheier 2008). There are also several ways to group coping responses (e.g., Compas et al. 2001, Skinner et al. 2003). Finally, the potential effects of coping are themselves numerous, ranging from emotional distress, to physiological reactivity, to mortality. Obviously a full treatment of all the relevant literatures is beyond the scope of this review, though we do touch on many of them.

The review begins with a brief consideration of personality. Although most first associations to the word "personality" probably focus on individual differences, we also consider core processes of human functioning that inform the analysis of coping. Next the review turns to the concept of stress, the term most often applied to circumstances that elicit coping. Then comes a closer look at coping itself, differentiating coping from other responses to stress and distinguishing among categories of coping. The central constructs having been introduced, the review then turns to their interrelations. We begin with links (theoretical and empirical) between personality and coping. Following is a discussion of how stress, personality, and coping interact in predicting mental and physical well-being. The article closes with recommendations for future research.

PERSONALITY

The psychology of personality is a very broad topic, to which people have taken diverse theoretical approaches (see recent *Annual Review of Psychology* articles by Caspi et al. 2005, Cervone 2005, Funder 2001, McAdams & Olson 2010, Mischel 2004, Ryan & Deci 2001). Personality is easy to observe but hard to pin down. To paraphrase Allport (1961), personality is the dynamic organization within the person of the psychological and physical systems that underlie that person's patterns of actions, thoughts, and feelings. What dynamics are assumed, however, and what systems are proposed to underlie those dynamics vary greatly across theoretical viewpoints.

Human Nature and Individual Differences

Personality psychology is partly about what makes everyone the same and partly about what makes people differ from each other. That is, personality theories are partly statements about human nature: assertions that people are basically (for example) biological creatures, social creatures, self-protective, self-actualizing, or learning creatures. To understand the person, one has to adopt some view of the essence of human nature.

Personality also concerns individual differences. Individual differences can be found on any dimension imaginable, but the so-called five-factor model (Digman 1990, Goldberg 1981, McCrae & Costa 2003) has been widely adopted as a consensual framework. The five factors are most commonly labeled extraversion, neuroticism, agreeableness, conscientiousness, and openness to experience. In this view, these broad dimensions are key determinants of behavior, and the aggregation of information resulting from a person's placement on these dimensions gives a reasonably good snapshot of what that person is like. Each broad trait is composed of multiple facets, which provide a more nuanced picture.

Broad adoption of the five-factor model does not mean unanimity about it. There are staunch advocates of other frameworks, including two three-factor models (Eysenck 1975, 1986; Tellegen 1985), an alternative five-factor model (Zuckerman et al. 1993), and a six-factor model (Ashton et al. 2004). Indeed, some important traits do not fit smoothly into the five-factor framework. For example, optimism has overtones of both extraversion and neuroticism, but does not quite fit either construct (Marshall et al. 1992).

Both human nature and individual differences are important to the topic of this review. In thinking about the nature of coping, it is helpful to have some view of how best to construe core human functions. Whatever view of human nature is adopted channels interpretation of people's reactions to stress. It will also be useful to have a sense of some of the ways in which people differ and expectations of how those differences may play a role in coping. These issues are addressed in greater detail in the next two sections.

Functional Organization: Two Views of Human Nature

Of the great many viewpoints that have been taken on human nature, two appear particularly relevant to stress and coping.

Biological models. An increasingly influential perspective, not just in personality but in all of psychology, treats humans as biological entities. From this view, it is desirable to develop a clear understanding of the basic properties of animal self-regulation and of how those properties are manifested in human behavior. We focus here on three properties: the tendency to approach desirable objects and situations (e.g., food), the tendency to avoid dangerous objects and situations (e.g., predators), and the capacity to regulate the approach and avoidance tendencies.

Biological models assuming approach and avoidance temperaments have acquired a good deal of influence over the past decade (see Davidson 1998, Depue & Collins 1999, Caspi & Shiner 2006, Caspi et al. 2005, Elliott & Thrash 2002, Fowles 1993, Gray 1994, Rothbart & Hwang 2005). They hold that approach and avoidance systems are supported partly by distinct brain areas, and that the sensitivity of each system (which varies among persons) influences behavior in response to environmental reward and threat cues.

Developmental theorists have posited another temperament, generally termed effortful control (Kochanska & Knaack 2003; Nigg 2000, 2003, 2006; Rothbart et al. 2004; Rothbart & Rueda 2005), slower to develop (Casey et al. 2008) and superordinate to approach and avoidance temperaments. Effortful control can override impulses stemming from the approach and avoidance systems. It acts as a supervisory system, provided sufficient mental resources are available. This confers many

Effortful control: superordinate temperament that can override the impulses of approach and avoidance temperaments to take broader considerations into account

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advantages, including constraining emotions and permitting the organism to plan for the future and take situational complexities into account in behavioral decisions. Effortful control is a construct from developmental psychology, but its features closely resemble those of adult self-control: the ability to override impulses to act and the ability to make oneself undertake or persist in difficult, uninteresting, or unpleasant tasks.

Approach and avoidance systems, together with a supervisory system able to reorder the priorities they pursue, form the core of a biological model of human nature. They also form the core of a conceptually distinct but complementary view of human nature grounded in the goal construct (Austin & Vancouver 1996, Carver & Scheier 1998, Elliott 2008, Higgins 1996).

Goal-based models. Some views of behavior emphasize its goal-directed quality. From this perspective, knowing a person means knowing the person's goals and values and the relations among them. In goal-based theories, it is important to distinguish between motivational processes aimed at moving toward goals and those aimed at staying away from threats (Carver & Scheier 2008, Elliott 2008, Higgins 1996). A desired goal has a positive incentive value that pulls behavior to it. Looming harm or pain has a negative incentive value that pushes behavior away from it. Sometimes only approach or avoidance is engaged. Sometimes they conflict, as when moving toward a goal also increases possibility of harm. Sometimes they work together, as when attaining a desired goal simultaneously forestalls something the person wants to avoid.

Goal-based models also typically incorporate an expectancy construct: a sense of confidence or doubt that a given outcome will be attained successfully (e.g., Bandura 1986, Carver & Scheier 1998). This forms a link to the expectancy-value tradition in motivational theory. Not every behavior produces its intended outcome; goal-directed efforts can be bogged down. Under such conditions, people's efforts are believed to be determined partly by their expectancies of succeeding or failing (e.g., Bandura 1986, Brehm & Self 1989, Carver & Scheier 1998, Eccles & Wigfield 2002, Klinger 1975, Wright 1996).

Goal-based models highlight something that is less obvious in biological models: People sometimes give up or scale back on goals they have been pursuing. It is sometimes important to relinquish goals (Miller & Wrosch 2007, Wrosch et al. 2007), though the process of doing so involves feelings of sadness and despair (Klinger 1975, Nesse 2000). An alternative to giving up is scaling back. This is disengagement in the sense that the initial goal is no longer operative. It avoids complete disengagement, however, by substituting the more restricted goal. This accommodation thus keeps the person involved in that area of life, at a level that holds the potential for successful outcomes.

Issues of goals and threats are important to understanding the structure of stressors. Issues of goal engagement and disengagement are important to understanding the structure of coping, as are issues of positive and negative expectancies for the future.

Structural Organization: Individual Differences

Five-factor model. We now return to individual differences, first in the form of the five-factor model. This model has its origins in a decades-long factor-analytic research tradition. It has not been without critics (e.g., Block 1995), partly because until relatively recently it has had little to say about how the traits function or how they map onto any picture of human nature. This has changed to a considerable extent over the past decade and a half. Not only has more information been collected on how traits operate, but several of the traits have also been linked to the process models of functioning described above.

The first of the five factors is extraversion. As is true of several traits, extraversion has different emphases in different measures. Sometimes it is based in assertiveness, sometimes in spontaneity and energy. Sometimes it is based in

dominance, confidence, and agency (Depue & Collins 1999), sometimes in a tendency toward happiness. Extraversion is often thought of as implying sociability (Ashton et al. 2002). Some see a sense of agency and a sense of sociability as two facets of extraversion (Depue & Morrone-Strupinsky 2005). Others argue sociability is a by-product of other features of extraversion (Lucas et al. 2000). A connection has also been drawn between extraversion and the approach temperament; some now view extraversion as reflecting relative sensitivity of a general approach system (Depue & Collins 1999, Caspi & Shiner 2006, Caspi et al. 2005, Elliott & Thrash 2002, Evans & Rothbart 2007).

The second factor, neuroticism, concerns the ease and frequency with which a person becomes upset and distressed. Moodiness, anxiety, and depression reflect higher neuroticism. Measures often include items or facets pertaining to hostility and other negative feelings, but they are dominated by vulnerability to experiences of anxiety and general distress. Neuroticism has been linked to the avoidance temperament discussed above (Caspi & Shiner 2006, Caspi et al. 2005, Evans & Rothbart 2007), suggesting that anxiety and sensitivity to threat is indeed its emotional core.

The next factor is agreeableness. Agreeable people are friendly and helpful (John & Srivastava 1999), empathic (Graziano et al. 2007), and able to inhibit their negative feelings (Graziano & Eisenberg 1999). Agreeable people get less angry over others' transgressions than do less agreeable people (Meier & Robinson 2004), and this seems to short-circuit aggression (Meier et al. 2006). At the opposite pole is an oppositional or antagonistic quality. People low in agreeableness use displays of power to deal with social conflict (Graziano et al. 1996). Agreeableness as a dimension is often characterized as being broadly concerned with the maintaining of relationships (Jensen-Campbell & Graziano 2001).

The most commonly used label for the next factor is conscientiousness, although this label does not fully reflect the qualities of planning, persistence, and purposeful striving toward goals that are part of it (Digman & Inouye 1986). Other suggested names include constraint and responsibility, reflecting qualities of impulse control and reliability. Specific qualities included in this trait vary considerably across measures (Roberts et al. 2005).

Agreeableness and conscientiousness appear to share an important property. Both suggest breadth of perspective. Many manifestations of conscientiousness imply broad time perspective: taking future contingencies into account. Agreeableness implies a broad social perspective: taking the needs of others into account. It has been suggested that both of these traits have origins in the effortful control temperament (Ahadi & Rothbart 1994, Caspi & Shiner 2006, Jensen-Campbell et al. 2002).

The fifth factor, most often called openness to experience (Costa & McCrae 1985), is the one about which there is most disagreement on content. Some measures (and theories) imbue this factor with greater overtones of intelligence, terming it intellect (Peabody & Goldberg 1989). It involves curiosity, flexibility, imaginativeness, and willingness to immerse oneself in atypical experiences (for a review of its involvement in social experience, see McCrae 1996).

Optimism. Another individual difference that figures prominently in the coping literature is optimism (Carver et al. 2009, Scheier & Carver 1992). Optimism connects directly to the expectancy-value motivational tradition discussed above in the context of goal-based models. Optimism and pessimism reflect confidence versus doubt, not regarding a specific situation but regarding life in general. As noted above, optimism does not fit neatly into the five-factor model. Its place in the goal-based view of self-regulation, however, has made it a popular trait for examination in the coping literature.

STRESS

It is common to think of stress as being a special class of experiences. It may be, however, that stress is nothing more (and nothing less)

short-circuit = bypass

Effortful Control Temperament --> Agreeableness & Conscientiousness

Emotions experienced due to problems in APPROACH would be different from those experienced due to problems in AVOIDANCE

Stress = experience of encountering or anticipating ADVERSITY in one's goal-related efforts; when people confront situations that TAX (make rigorous demands on themselves) or EXCEED their ability to manage them; when resources are THREATENED or LOST

adversity (= stress) = a state or instance of serious or continued DIFFICULTY or MISFORTUNE

= THREAT (EXPECTING an event having bad consequences already)

= HARM (EXPERIENCING bad consequences of failures to gain incentives or failures to avoid punishers)

= LOSS (EXPECTING something desired HAVING BEEN TAKEN AWAY)--specific to APPROACH goals (= loss precludes [rule out] CONTINUATION of a desired state of affairs)

==> What kinds of stress (threat, harm, loss) was each of these celebrities experiencing? (Anita Mui, Lesley Cheung, MJ)

than the experience of encountering or anticipating adversity in one's goal-related efforts. It is often said that stress exists when people confront situations that tax or exceed their ability to manage them (e.g., Lazarus 1966, 1999; Lazarus & Folkman 1984). Whenever a person is hard-pressed to deal with some obstacle or impediment or looming threat, the experience is stressful.

A somewhat different view of stress uses an economic metaphor (Hobfoll 1989, 1998), holding that people have resources that they try to protect, defend, and conserve. Resources are anything the person values. They can be physical (e.g., house, car), conditions of life (e.g., having friends and relatives, stable employment), personal qualities (e.g., a positive world view, work skills), or other assets (e.g., money or knowledge). From this view, stress occurs when resources are threatened or lost.

In translating adversity to stress, at least three terms are used, two of which are more slippery than they might seem: Threat is the impending occurrence of an event that is expected to have bad consequences, harm is the perception that the bad consequences already exist, and loss is the perception that something desired has been taken away. These adverse experiences are all stressful, but they vary in their motivational underpinnings.

Loss seems specific to approach goals: Loss precludes the continuation of a desired state of affairs. For example, the death of a spouse prevents the continuation of the relationship and its activities. Threat and harm are more ambiguous because they apply to both failures to gain incentives (approach-related events) and failures to avoid punishers (avoidance-related events). For approach-related events, threat means imminent interference with desired goals or conditions; harm implies that the interference has already occurred. For avoidance-related events, threat implies the imminent arrival of intrinsically aversive states such as pain or discomfort (Rolls 2005); harm implies that punishment has already arrived.

There appear to be differences in the negative emotions arising from problems in approach versus problems in avoidance (Carver 2004, Carver & Harmon-Jones 2009, Higgins 1996, Higgins et al. 1997). Threat in a purely approach context yields frustration and anger; threat in a purely avoidance context yields anxiety and fear. Loss yields sadness and dejection, as may harm in the context of avoidance. To the extent that stress is approach related, then, one set of negatively valenced affects will predominate. To the extent that the experience is avoidance related, other negatively valenced affects will predominate. To the extent that anger and fear differ physiologically, the grounding of the stress response in approach versus avoidance also matters physiologically.

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Also sometimes invoked in the context of stress is the concept of challenge (Lazarus & Folkman 1984). Challenge is a situation in which the person's efforts are strongly engaged, thus taxing abilities, but in which the person sees opportunity for gain. Challenge might be thought of as an "optimal" obstacle—one that appears surmountable (with effort) and the removal of which will lead to a better state of affairs. Pure challenge seems to involve the approach system but not the avoidance system. Challenge also implies expectation of success. Affects linked to challenge include hope, eagerness, and excitement (Lazarus 2006). The characteristics (and consequences) of challenge appear to be different enough from those of threat and loss as to cast serious doubt on the position that challenge should be viewed as a form of stress (Blascovich 2008, Tomaka et al. 1993).

The experience of stress seems inexorably linked to the pursuit of goals and avoidance of threats. Most basically, stress occurs when a person perceives an impending punisher or the impending inability to attain a goal, or perceives the actual occurrence of a punisher or removal of access to a goal. From the goal-pursuit view, these experiences constitute the broad and very general realm of behavior-under-adversity.

Stress = pursuit of goals (approach) & avoidance of threats; when people perceive an impending PUNISHER or an impending INABILITY to attain a goal, or PERCEIVE that an actual occurrence of punisher or removal of access to a goal

==> Can you explain why studying here in HK can be stressful to most teenagers?

COPING

People respond to perceptions of threat, harm, and loss in diverse ways, many of which receive

==> What kinds of stress (threat, harm, loss) can lead people to choosing immigration to another country?

==> Why does lie detector work? What does it have to do with stress (threat, harm, loss) experienced by the lier? How can you detect lying behavior in a person?

the label "coping." Coping is often defined as efforts to prevent or diminish threat, harm, and loss, or to reduce associated distress. Some prefer to limit the concept of coping to voluntary responses (Compas et al. 2001); others include automatic and involuntary responses within the coping construct (Eisenberg et al. 1997, Skinner & Zimmer-Gembeck 2007). Of course, distinguishing between voluntary and involuntary responses to stress is not simple; indeed, responses that begin as intentional and effortful may become automatic with repetition. Here we limit ourselves only to responses that are recognized by the person engaging in them, thus removing unconscious defensive reactions from the realm of consideration (cf. Cramer 2003).

Coping = efforts to PREVENT or DIMINISH threat, harm, & loss, or to reduce associated distress

Coping Distinctions and Groupings

Coping is a very broad concept with a long and complex history (Compas et al. 2001, Folkman & Moscowitz 2004). Several distinctions have been made within the broad domain; indeed, it might even be said that a bewildering number of distinctions have been made (see Skinner et al. 2003). Some of the more important ones follow.

Problem versus emotion focus. The distinction that launched modern examination of coping was that between problem-focused and emotion-focused coping (Lazarus & Folkman 1984). Problem-focused coping is directed at the stressor itself: taking steps to remove or to evade it, or to diminish its impact if it cannot be evaded. For example, if layoffs are expected, an employee's problem-focused coping might include saving money, applying for other jobs, obtaining training to enhance hiring prospects, or working harder at the current job to reduce the likelihood of being let go. Emotion-focused coping is aimed at minimizing distress triggered by stressors. Because there are many ways to reduce distress, emotion-focused coping includes a wide range of responses, ranging from self-soothing (e.g., relaxation, seeking emotional support), to expression of negative emotion (e.g., yelling, crying), to a focus on negative thoughts (e.g., rumination), to attempts to escape stressful situations (e.g., avoidance, denial, wishful thinking).

Problem-focused and emotion-focused coping have distinct proximal goals. The proximal goal determines the response's category assignment. Some behaviors can serve either function, depending on the goal behind their use. For example, seeking support is emotion focused if the goal is to obtain emotional support and reassurance, but problem focused if the goal is to obtain advice or instrumental help.

Engagement coping: coping aimed at dealing with the stressor or the resulting distress emotions

Disengagement coping: coping aimed at escaping from dealing with the stressor or the resulting distress emotions

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Problem- and emotion-focused coping can also facilitate one another. Effective problem-focused coping diminishes the threat, but thereby also diminishes the distress generated by that threat. Effective emotion-focused coping diminishes negative distress, making it possible to consider the problem more calmly, perhaps yielding better problem-focused coping. This interrelatedness of problem- and emotion-focused coping makes it more useful to think of the two as complementary coping functions rather than as two fully distinct and independent coping categories (Lazarus 2006).

Engagement versus disengagement. A particularly important distinction is between engagement or approach coping, which is aimed at dealing with the stressor or related emotions, and disengagement or avoidance coping, which is aimed at escaping the threat or related emotions (e.g., Moos & Schaefer 1993, Roth & Cohen 1986, Skinner et al. 2003). Engagement coping includes problem-focused coping and some forms of emotion-focused coping: support seeking, emotion regulation, acceptance, and cognitive restructuring. Disengagement coping includes responses such as avoidance, denial, and wishful thinking. Disengagement coping is often emotion focused, because it involves an attempt to escape feelings of distress. Sometimes disengagement coping is almost literally an effort to act as though the stressor does not exist, so that it does not have to be reacted to, behaviorally or emotionally. Wishful thinking and fantasy distance the person from the stressor, at least

Engagement (Approach) Coping = deals with the stressor (Problem-Focused Coping = PROBLEM SOLVING) or related emotions (Emotion-Focused Coping); incl. SUPPORT SEEKING (Emotional Support, Expression of Negative Emotions [Yelling, Crying]), EMOTION REGULATION (Self-Soothing: Relaxation), ACCEPTANCE, COGNITIVE RESTRUCTURING (focus on negative thoughts: Rumination = thinking about something in a sustained manner)

Disengagement (Avoidance) Coping = Emotion-Focused Coping -- escape feelings of distress (reduce distress) or act as though the stressor does not exist and does not have to be reacted to behaviorally or emotionally; incl. Wishful Thinking & Fantasy (distance oneself from the stressor; use of Alcohol & Drug, Shopping & Gambling), Avoidance & Denial (create boundary between reality & person's experience [incl. Relinquishing Goals Threatened by the Stressors] --> increase intrusive thoughts about stressor & negative mood & anxiety) --> ineffective in the long run (does nothing about the Threat's existence & its impact)

==> The use of Disengagement Coping to cope with the distress experienced by losing a father can explain why a teenage boy acted as if the death of his father affected him "nothing."

==> What kind of Coping Strategy is "Quitting from an extracurricular activity due to its anticipated stress"? Is it Engagement or Disengagement Coping? Accommodative or Meaning-Focus Coping?

temporarily, and denial creates a boundary between reality and the person's experience.

Despite this aim of escaping distress, disengagement coping is generally ineffective in reducing distress over the long term, as it does nothing about the threat's existence and its eventual impact. If you are experiencing a real threat in your life and you respond by going to the movies, the threat will remain when the movie is over. Eventually it must be dealt with. Indeed, for many stresses, the longer one avoids dealing with the problem, the more intractable it becomes and the less time is available to deal with it when one finally turns to it. Another problem is that avoidance and denial can promote a paradoxical increase in intrusive thoughts about the stressor and an increase in negative mood and anxiety (Najmi & Wegner 2008). Finally, some kinds of disengagement create problems of their own. Excessive use of alcohol or drugs can create social and health problems, and shopping or gambling as an escape can create financial problems.

The concept of disengagement coping has been extended to include relinquishing goals that are threatened by the stressor (Carver et al. 1989). This differs from other disengagement responses in that it addresses both the stressor's existence and its emotional impact by abandoning an investment in something else. Disengaging from the threatened goal may allow the person to avoid negative feelings associated with the threat.

Accommodative coping and meaning-focused coping. Within engagement coping, distinctions have been made between attempts to control the stressor itself, called primary-control coping, and attempts to adapt or adjust to the stressor, termed accommodative or secondary-control coping (Morling & Evered 2006, Skinner et al. 2003). We use the term "accommodative" here because it does not carry connotations either of exerting control or of being secondary to other coping efforts.

The notion of accommodative coping derives from conceptions of the process of successful aging (Brandtstädter & Renner 1990). It refers to adjustments within the self that are made in response to constraints. In the realm of coping, accommodation applies to responses such as acceptance, cognitive restructuring, and scaling back one's goals in the face of insurmountable interference. Another kind of accommodation is self-distraction. Historically this reaction has been considered disengagement coping, but confirmatory factor analyses consistently indicate that intentionally engaging with positive activities is a means of adapting to uncontrollable events (Skinner et al. 2003).

A related concept is what Folkman (1997) called "meaning-focused coping" (see also Folkman 2008, Park & Folkman 1997), in which people draw on their beliefs and values to find, or remind themselves of, benefits in stressful experiences (Tennen & Affleck 2002). Meaning-focused coping may include reordering life priorities and infusing ordinary events with positive meaning. This construct has roots in evidence that positive as well as negative emotions are common during stressful experiences (e.g., Andrykowsky et al. 1993), that positive feelings influence outcomes, and particularly that people try to find benefit and meaning in adversity (Helgeson et al. 2006, Park et al. 2009). Although this construct emphasizes the positive changes a stressor brings to a person's life, it is noteworthy that meaning-focused coping also represents an accommodation to the constraints of one's life situation. Meaning-focused coping involves reappraisal, and appears to be most likely when stressful experiences are uncontrollable or are going badly (Folkman 2008).

Proactive coping. Although most discussions of coping emphasize responses to threat and harm, Aspinwall & Taylor (1997) have pointed out that some coping occurs proactively before the occurrence of any stressor. Proactive coping is not necessarily different in nature from other coping, but it is intended to prevent threatening or harmful situations from arising. Proactive coping is nearly always problem focused, involving accumulation of resources that will be useful if a threat arises and scanning the

Accommodative coping: coping aimed at adapting or adjusting to effects of the stressor

==> Do kids and teenagers usually know how to engage in Support Seeking (i.e., seeking for help when needed to alleviate stress)?

Engagement (Approach) Coping = three types:

Primary-Control Coping = attempts to control the stressor itself (Problem Solving, Support Seeking)

Accommodative Coping (or Secondary-Control Coping) (= attempts to adapt or adjust to the stressor -- ADJUSTMENTS WITHIN ONESELF in response to the constraints; incl. Acceptance, Cognitive Restructuring, Scaling Back One's Goal in the Face of Insurmountable Interference; Self-Distraction);

Meaning-Focused Coping (= draw on beliefs & values to find, or remind themselves of, BENEFITS in stressful experiences; people try to find benefit and meaning in adversity; incl. Reappraisal, esp. when stressful experiences are uncontrollable or are going badly)

experiential horizon for signs that a threat may be building. If the beginning of a threat is perceived, the person can engage strategies that will prevent it from growing or that will remove the person from its path. If the anticipation of an emerging threat helps the person avoid it, the person will experience fewer stressful episodes and will experience stress of less intensity when the experiences are unavoidable.

Conclusions. This brief review (which is far from exhaustive—see Compas et al. 2001, Skinner et al. 2003) makes clear that there are many ways to group coping responses and that these distinctions do not form a neat matrix into which coping reactions can be sorted. A given response typically fits several places. For example, the seeking of emotional support is engagement, emotion-focused, and accommodative coping. Each distinction has a focus of convenience and is useful for answering different questions about responses to stress. Furthermore, no one distinction fully represents the structure of coping. Confirmatory analyses clearly support hierarchical, multidimensional models of coping (Skinner et al. 2003). The distinction that appears to have greatest importance is engagement versus disengagement, a distinction that also maps well onto the goal-based model discussed in the context of personality.

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Coping dispositions and personality. One more issue should be addressed before we continue. There is some evidence that coping is stable over time in a given stress domain (e.g., Gil et al. 1997, Powers et al. 2003) and that people have habitual coping tendencies (Moos & Holahan 2003). Do these coping dispositions differ in any fundamental way from personality? If coping dispositions are trait-like, how meaningful is the topic of how coping relates to personality?

Murberg et al. (2002) argued that several conditions should be met for personality and coping to be viewed as parts of the same construct. First, they should be highly correlated. Second, because personality is quite stable, coping should also be highly stable. Third, coping should not account for substantial unique variance in outcomes after controlling for personality. In general, these conditions do not hold. Relations between personality and coping are modest, coping is less stable than personality, and coping predicts adjustment over and above personality (Connor-Smith & Flachsbart 2007, Murberg et al. 2002). Coping styles are only modestly heritable, and the genetic bases for personality and coping do not overlap strongly (Jang et al. 2007). Although personality and coping are related, coping is not simply direct manifestation of personality under adverse conditions.

PERSONALITY AND COPING

Personality does influence coping in many ways, however, some of which occur prior to coping. Even prior to coping, personality influences the frequency of exposure to stressors, the type of stressors experienced, and appraisals (Vollrath 2001). Neuroticism predicts exposure to interpersonal stress, and tendencies to appraise events as highly threatening and coping resources as low (Bolger & Zuckerman 1995, Grant & Langan-Fox 2007, Gunthert et al. 1999, Penley & Tomaka 2002, Suls & Martin 2005). Conscientiousness predicts low stress exposure (Lee-Baggley et al. 2005, Vollrath 2001), probably because conscientious persons plan for predictable stressors and avoid impulsive actions that can lead to financial, health, or interpersonal problems. Agreeableness is linked to low interpersonal conflict and thus less social stress (Asendorpf 1998). Extraversion, conscientiousness, and openness all relate to perceiving events as challenges rather than threats and to positive appraisals of coping resources (Penley & Tomaka 2002, Vollrath 2001). Unsurprisingly, high neuroticism plus low conscientiousness predicts especially high stress exposure and threat appraisals, and low neuroticism plus high extraversion or high conscientiousness predicts especially low stress exposure and threat appraisals (Grant & Langan-Fox 2006, Vollrath & Torgersen 2000).

Proactive Coping = Problem-Focused; incl. Accumulation of Resources that will be useful if a threat arises; Scanning the Experiential Horizon for Signs that a threat may be building --> ENGAGE IN STRATEGIES that will PREVENT A THREAT from growing or that will REMOVE the person from the Threat's path

Neuroticism --> high exposure to interpersonal stress; tending to appraise events as highly threatening & appraise coping resources as low

Conscientiousness --> low stress exposure; tending to plan for predictable stressors, avoid impulsive actions that may lead to financial, health, or interpersonal problems

Agreeableness --> low interpersonal conflict & less social stress

Extraversion, Conscientiousness, Agreeableness --> perceive events as Challenge rather than Threats, have positive appraisals of coping resources

High Neuroticism + Low Conscientiousness --> high stress exposure & Threat appraisals

Low Neuroticism + High Extraversion or High Conscientiousness --> low stress exposure & Threat appraisals

Theoretical Relations Between Personality and Coping

Given exposure to stressors, personality can be expected to influence coping responses in several ways. From a biological view, responses to stress presumably stem from temperament-based approach, avoidance, and attentional regulation systems (Derryberry et al. 2003, Skinner & Zimmer-Gembeck 2007). From an expectancy-value view, coping efforts presumably are influenced by expectations of future outcomes (Carver et al. 2009).

Extraversion = grounded in an APPROACH Temperament = sensitivity to reward, positive emotions (--> facilitate Cognitive Restructuring), sociability (--> facilitate Social Support Coping), assertiveness, high energy --> initiating & persisting in Problem Solving

Extraversion, grounded in an approach temperament, involves sensitivity to reward, positive emotions, sociability, assertiveness, and high energy (Caspi et al. 2005, McCrae & John 1992, Rothbart & Hwang 2005). Strong approach tendencies and assertiveness should provide the energy required to initiate and persist in problem solving (Lengua et al. 1999, Vollrath 2001); positive affect should facilitate cognitive restructuring; and an orientation toward others and access to a social network should facilitate social support coping.

Neuroticisim = grounded in an AVOIDANCE Temperament = tendencies to experience fear, sadness, distress, physiological arousal --> using Emotion-Focused Coping & Disengagement from Threat --> short-term relief of distress --> reduce motivation to return to the stressor (--> minimizing Engagement Coping & making Positive Thinking & Cognitive Restructuring difficult)

Neuroticism, grounded in an avoidance temperament, reflects tendencies to experience fear, sadness, distress, and physiological arousal (McCrae & John 1992, Miles & Hempel 2003, Rothbart & Hwang 2005). Given this vulnerability to distress, neuroticism should lead to emotion-focused coping and disengagement from threat. Disengagement may be reinforced through short-term relief of distress (Lengua et al. 1999); this relief may reduce motivation to return to the stressor, thus minimizing engagement coping. Furthermore, the mere presence of intense emotional arousal can interfere with the use of engagement strategies that require careful planning. Negative affect should also make positive thinking and cognitive restructuring difficult.

Conscientiousness = DELIBERATIVE Approach (deliberate = consider a matter carefully; deliberative = use of debate or deliberation) = persistence, self-discipline, organization, achievement orientation; planful, disciplined --> faciliate Problem Solving (--> less likely to use Disengagement Coping); strong attention regulation --> success in using Cognitive Restructuring (disengaging Negative Thoughts)

Conscientiousness implies persistence, self-discipline, organization, achievement orientation, and a deliberative approach (Caspi et al. 2005, McCrae & John 1992). The planful, disciplined properties of this trait should facilitate problem solving and make disengagement less likely (Lengua et al. 1999, Vollrath 2001). The strong attention-regulation capacity underpinning conscientiousness (Derryberry et al. 2003) should predict success at cognitive restructuring, which requires a capacity to disengage from powerful negative thoughts.

Agreeableness = high levels of trust & concern for others --> strong social network --> use of Social Support Coping

Agreeableness involves high levels of trust and concern for others (Caspi et al. 2005, McCrae & John 1992). Because those high in agreeableness tend to have strong social networks (Bowling et al. 2005, Tong et al. 2004), agreeableness may predict social support coping. Openness to experience involves the tendency to be imaginative, creative, curious, flexible, attuned to inner feelings, and inclined toward new activities and ideas (John & Srivastava 1999, McCrae & John 1992). These tendencies may facilitate engagement coping strategies that require considering new perspectives, such as cognitive restructuring and problem solving, but may also facilitate use of disengagement strategies such as wishful thinking.

Openness = tendency to be imaginative, creative, curious, flexible, attuned to inner feelings, inclined toward new activities & ideas --> facilitate Engagement Coping Strategies (Cognitive Restructuring, Problem Solving) & Disengagement Strategies (Wishful Thinking)

Optimism involves the expectation of good outcomes and an engaged approach to life, apparently reflecting the belief that good outcomes require some effort. These characteristics suggest that optimism will relate positively to engagement types of coping, such as problem solving and cognitive restructuring, and inversely to avoidance or disengagement coping. Pessimism involves the expectation of bad outcomes, which should promote distress and disengagement coping.

Empirical Relations Between Personality and Coping

Evidence bearing on these predicted associations is now available from hundreds of studies of relations between personality and coping. Most report cross-sectional correlations between personality and broad measures of dispositional coping; others address coping with specific stresses. The number of studies, and the great diversity of situations investigated, makes summarizing the associations a difficult task. Two recent meta-analyses have attempted to integrate this literature. Connor-Smith &

Table 1 Mean weighted correlations between personality and measures of engagement and disengagement coping, aggregated at broad levels and separated by specific responses. Adapted from Connor-Smith & Flachsbart (2007).

	E	N	C	A	O
Broad engagement coping	0.15	0.00	0.11	0.05	0.10
Primary control engagement	0.19	−0.06	0.18	0.07	0.11
Secondary control engagement	0.15	−0.03	0.09	0.07	0.11
Specific engagement responses:					
Problem solving	0.20	−0.13	0.30	0.09	0.14
Use of social support	0.24	−0.01	0.09	0.11	0.06
Cognitive restructuring	0.22	−0.16	0.20	0.14	0.15
Acceptance	0.02	−0.10	0.07	0.08	0.07
Emotion regulation	0.03	0.00	0.08	0.01	0.06
Expression of negative emotion	−0.05	0.41	−0.14	−0.09	0.03
Broad disengagement coping	−0.04	0.27	−0.15	−0.13	−0.02
Specific disengagement responses:					
Denial	−0.02	0.18	−0.17	−0.12	−0.07
Withdrawal	−0.05	0.29	0.01	0.08	0.10
Wishful thinking	−0.03	0.35	—	—	0.11
Substance use	−0.04	0.28	−0.18	−0.18	0.04

Abbreviations: E, extraversion; N, neuroticism; C, conscientiousness; A, agreeableness; O, openness to experience. Note: Effect sizes in this table represent mean correlations, weighted for sample size. As a general rule, mean correlations of 0.10 are considered small effects, 0.30 medium effects, and 0.50 large effects (Cohen 1988). Dash in cell indicates too few studies to analyze.

Flachsbart (2007) focused on Big Five personality traits in a meta-analysis of data from 165 adult, adolescent, and middle-childhood samples. Solberg Nes & Segerstrom (2006) focused on optimism as measured by the Life Orientation Test or its revised version (LOT-R) using data from 50 samples of adults and adolescents.

Some individual studies have found strong correlations between personality and coping. Overall, however, both meta-analyses suggest that relations between personality and coping are modest (see **Tables 1** and **2**). This does not mean that the impact of personality on coping is unimportant. A small influence, multiplied by the thousands of stressors experienced over a lifetime, may result in a large impact over time. Furthermore, both meta-analyses found substantial heterogeneity in effect sizes across studies. In part, this heterogeneity reflects diversity among samples and measures. But it also illustrates the need to test specific coping strategies rather than only broad coping types, and to consider moderators of relations between personality and coping. This section first reviews overall relationships between personality and coping, then considers some important moderators.

Table 2 Mean weighted correlations between optimism and four classes of coping, separated by three classes of stressors. Adapted from Solberg Nes & Segerstrom (2006).

	Academic stressor	Trauma stressor	Health stressor
Problem approach coping	0.17[a]	0.06[b]	0.13[a]
Emotion approach coping	0.08[a]	0.13[b]	0.12[b]
Problem avoidance coping	−0.27[a]	−0.15[b]	−0.39[c]
Emotion avoidance coping	−0.21[a]	−0.05[b]	−0.32[c]

Note: Effect sizes in each row that share a superscript do not differ significantly.

Both meta-analyses presented effect sizes for broad engagement and disengagement coping responses. Connor-Smith & Flachsbart (2007) also considered specific strategies within the broad categories and (separately) examined two emotion-focused categories with varying overtones of engagement and disengagement. Solberg Nes & Segerstrom (2006) also presented effect sizes for problem-focused and emotion-focused categories, and crossed those categories with engagement and disengagement to explore four more focused coping types.

Engagement coping. Optimism was positively associated with broad measures of engagement coping, $r = 0.17$, and problem-focused coping, $r = 0.13$ (Solberg Nes & Segerstrom 2006). Optimism was also positively, and about equivalently, associated with the subsets of problem-focused engagement responses (e.g., planning, seeking instrumental support), $r = 0.17$, and emotion-focused engagement responses (e.g., cognitive restructuring, acceptance), $r = 0.13$. Thus, as expected, optimism predicts active attempts to both change and accommodate to stressful circumstances.

Results for five-factor traits are in **Table 1**. Overall, extraversion, conscientiousness, and openness to experience predicted greater use of engagement coping, with conscientiousness more strongly related to primary control coping than to accommodative coping (Connor-Smith & Flachsbart 2007). Although effect sizes for relations between five-factor traits and broad coping were relatively small, results for specific coping types were more interesting. Analyses with specific coping types revealed stronger relationships between personality and coping, with several effects in the range considered moderately strong (Cohen 1988). Analyses of specific coping types also showed that a trait can correlate positively with one type of engagement coping and negatively with another, which may partially explain the relatively small effect sizes for relations between broad personality traits and broad coping types.

Of the specific coping responses, cognitive restructuring and problem solving were the most strongly related to personality, and emotion regulation and acceptance were the least strongly related. Extraversion predicted more problem solving, use of social support, and cognitive restructuring (one kind of accommodation), but was unrelated to acceptance (another kind of accommodation) or emotion regulation. Neuroticism predicted less problem solving, cognitive restructuring, and acceptance, but more seeking of emotional support and distraction. Conscientiousness predicted greater problem solving and cognitive restructuring but was unrelated to use of social support or acceptance. Agreeableness was unrelated to most engagement coping but predicted greater use of social support and cognitive restructuring. Openness predicted more problem solving and cognitive restructuring.

Just as specific coping responses were more strongly associated with personality than were broad coping tendencies, it is likely that specific personality facets would better predict coping than do broad traits. For example, the warmth and gregariousness facets of extraversion may be the best predictors of social support coping, and the assertiveness facet may better predict problem solving. Regrettably, too few studies have explored relationships of personality facets to coping for this question to be addressed.

Disengagement coping. The pattern for disengagement coping is in some ways opposite that of engagement coping. This is particularly true for optimism. Optimism related negatively to disengagement coping, $r = -0.21$ and to specific subsets of problem-focused disengagement (e.g., behavioral disengagement) and emotion-focused disengagement (e.g., denial, wishful thinking), $r = -0.29$ and -0.21, respectively (Solberg Nes & Segerstrom 2006).

Among the five-factor traits (**Table 1**), disengagement coping related to personality less strongly than did engagement coping. Of the specific strategies, denial and substance use were most clearly linked to personality. However, many specific disengagement

strategies did not have enough effect sizes for analysis, making this conclusion tentative. Neuroticism was positively related to overall disengagement and to all specific disengagement responses, particularly wishful thinking and withdrawal. In contrast, extraversion, which was positively related to most engagement responses, was unrelated to any disengagement response. Conscientiousness and agreeableness predicted less overall disengagement and less denial and substance use. Openness to experience showed a complex relationship to disengagement coping, predicting slightly more wishful thinking and withdrawal and slightly less denial.

Emotion-focused coping. Relations of personality to broad emotion-focused scales differed from relations of personality to more specific emotion-regulation scales. Optimism was largely unrelated to broad emotion-focused coping, $r = -0.08$, but related positively to emotion-focused engagement and negatively to emotion-focused disengagement, as described above (Solberg Nes & Segerstrom 2006). As expected on theoretical grounds, the relationship of optimism to coping differed far more substantially between engagement and disengagement than between problem focus and emotion focus.

Relations of five-factor traits to emotion-focused coping also suggest the importance of distinguishing between types of emotion-focused coping (Connor-Smith & Flachsbart 2007). Emotion regulation scales focused on relaxation and controlled expression of emotion were essentially unrelated to five-factor traits. However, scales assessing the expression of negative emotions related positively (and strongly) to neuroticism and negatively to conscientiousness and agreeableness.

Moderators of Relations Between Personality and Coping

A few of the most important moderators of relations between personality and coping are described here (for more complete accounts, see Connor-Smith & Flachsbart 2007, Solberg Nes & Segerstrom 2006). Because the literature on optimism and coping is smaller than the literature on five-factor traits and coping, fewer moderators could be tested. Findings described here pertain to five-factor traits unless indicated otherwise.

Age. Many relations between personality and coping were stronger in younger than in older samples, particularly those for problem solving and cognitive restructuring. There probably are several reasons for this. Temperament may affect coping responses more strongly in children than in adults, who are likely more skilled at matching coping strategies to situational demands (Skinner & Zimmer-Gembeck 2007). Age-related declines in neuroticism and increases in agreeableness and conscientiousness (McCrae et al. 2000, Roberts & Del Vecchio 2000) may lead older adults to experience less distress and thus less variability in coping. Indeed, the fact that much of the moderation occurred for problem solving and cognitive restructuring suggests the possibility that most people acquire more skill with these responses to adversity as they age, tending to wash out individual differences.

Stressor type and severity. Relations between personality and coping were generally stronger in samples facing a high degree of stress (e.g., cancer, chronic pain, divorce) than in samples with little stress (Connor-Smith & Flachsbart 2007). Low-grade stressors promote less coping variability than do chronic stressors such as poverty, divorce, or serious illness, which affect multiple life domains. Stressors that require clear, specific responses, such as changing a flat tire or meeting a work deadline, also provide little room for individual differences to operate. Thus, chronic or high-intensity stressors may best reveal relations between personality and coping (Gomez et al. 1999, Moos & Holahan 2003, Murberg et al. 2002).

The domain of stress also moderates relations between optimism and coping.

Associations of optimism with coping differed fairly substantially across academic, trauma-related, and health-related stressors (**Table 2**). Optimism was more strongly linked to problem-focused engagement for academic and health stressors than for the less controllable trauma-related stressors. In contrast, optimism related more strongly to emotion-focused engagement for traumatic and health stressors, which are more severe and less controllable than academic stressors. These results suggest that optimism is associated with flexible coping and the capacity to match coping to the demands of the stressor.

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Daily-report studies also suggest the importance of context (Lee-Baggley et al. 2005). Most simply, context can influence what personality traits matter. For example, agreeableness appears to be a stronger predictor of coping in studies involving interpersonal stressors than in studies involving stressors such as pain (DeLongis & Holtzman 2005).

Situational versus dispositional coping. Unsurprisingly, personality predicted dispositional coping better than it predicted responses to specific stressors. There are several probable reasons for this. General tendencies are likely to be more clearly revealed across an aggregation of responses (Epstein 1980, Ptacek et al. 2005), which is what a dispositional response format asks respondents to create. In contrast, responses to specific stressors may be strongly influenced by the event type, available resources, and stressor severity and controllability. Personality may also influence recall of coping, with people best recalling strategies that are familiar and personality-congruent, further strengthening relations between personality and dispositional coping.

Time lag. Another potentially important moderator is the time lag between the coping activity and the coping report. Retrospective coping reports are weakly related to daily reports, with longer recall periods and higher stress levels promoting greater discrepancies (Ptacek et al. 2008, Schwartz et al. 1999, Smith et al. 1999). Again, there are several likely reasons. Accuracy of reports is influenced by difficulty aggregating responses over time, memory errors, self-presentation biases, and the extent to which stresses were resolved (e.g., Ptacek et al. 1994, Stone et al. 1995). Indeed, personality may influence the nature of recall biases: People may be more likely to remember and report strategies that work well for them or are consistent with their traits.

Some specific results from the Connor-Smith & Flachsbart (2007) meta-analysis raise interesting questions concerning time lag. Although neuroticism was unrelated to engagement in retrospective reports, it was positively related to engagement in daily reports. Perhaps persons high in neuroticism fail to remember engagement responses because they are trait-inconsistent. Or perhaps they use engagement coping but do not persist long enough for engagement to comprise a significant portion of their overall coping or to be coded well in memory.

In contrast, conscientiousness was positively related to retrospective reports of engagement coping but negatively related to engagement coping in daily reports. To some extent, this may reflect a tendency of those high in conscientiousness to recall personality-congruent planning and problem-solving strategies. Alternatively, the negative relation in daily reports could reflect the reality that responses such as problem solving unfold over time and are not well captured in a daily report, or that conscientious individuals have lower overall levels of stress exposure and thus less need for engagement coping.

PERSONALITY, COPING, AND WELL-BEING

Our target question is how personality relates to coping. On the personality side, information on that question provides an elaborated view of how traits influence behavior. On the coping side, it provides a clearer view of who can be expected to engage in which type of coping in response to different kinds of adversities.

Another question, distinct from how personality influences coping, concerns links from personality and coping to well-being.

Personality Relations with Mental and Physical Health

Personality has been linked to both psychological and physical outcomes. Most research on this topic focuses on relations of neuroticism to anxiety and depression. Meta-analyses show that neuroticism predicts clinical symptoms and disorders, with a stronger relationship to mood and anxiety disorders than to externalizing problems (Malouff et al. 2005). Neuroticism is also linked to greater risk for suicidal ideation, attempts, and completion (Brezo et al. 2006) and to more alcohol use (Malouff et al. 2007). Pessimism is similarly related to lower levels of subjective well-being across many studies (Carver et al. 2009).

In contrast, conscientiousness has a consistent protective effect, predicting lower risk for internalizing problems, externalizing problems, and substance use problems (Malouff et al. 2005, 2007), less negative affect, greater academic achievement, and greater subjective well-being (Steel et al. 2008, Trapmann et al. 2007). Similarly, effortful control temperament has been linked to low levels of anxiety and depression (Compas et al. 2004, Muris et al. 2004). Conscientiousness also appears to buffer risks for lasting distress associated with high neuroticism (Lonigan & Phillips 2001, Muris 2006).

Extraversion is strongly associated with measures of well-being, explaining up to 19% of the variance in positive mood (Steel et al. 2008). Extraversion is negatively associated with suicidality (Brezo et al. 2006) and with clinical symptoms in general, particularly symptoms of mood, anxiety, and eating disorders. However, extraversion is associated with slightly elevated risk for conduct problems (Malouff et al. 2005).

Although less research has been conducted on relations between agreeableness and adjustment, agreeableness is associated with greater subjective well-being (Steel et al. 2008) and lower risk for clinical symptoms, particularly externalizing problems (Malouff et al. 2005) and suicide attempts (Brezo et al. 2006). Although openness to experience is largely unrelated to clinical symptoms and subjective well-being, it is associated with positive affect (Malouff et al. 2005, Steel et al. 2008). Relations between personality and adjustment appear relatively consistent across methodologies, informant, age, and sex (Malouff et al. 2005, Steel et al. 2008), but may differ slightly across cultures (Ozer & Benet-Martínez 2006).

A similar pattern is seen for relations between personality and physical health outcomes (see reviews by Caspi et al. 2005, Friedman 2008, Ozer & Benet-Martínez 2006). A meta-analysis links higher optimism to better health (Rasmussen et al. 2009). Conscientiousness also relates to better health, and a recent meta-analysis links this trait to greater longevity (Kern & Friedman 2008), perhaps because conscientiousness is associated with fewer risky health behaviors and better treatment adherence. Extraversion is also associated with better health, perhaps due in part to the link between extraversion and social engagement. Neuroticism appears related to poorer health, although it remains unclear whether the link is to actual disease or simply to greater distress over symptoms and more illness-focused behaviors (Ozer & Benet-Martínez 2006). However, a recent meta-analysis of laboratory research found that neuroticism predicts slower cardiovascular recovery from stress (Chida & Hamer 2008). Agreeableness predicts health, whereas traits linked to low agreeableness, such as hostility, are linked both to greater cardiovascular stress reactivity (Chida & Hamer 2008) and to greater risk for cardiovascular illness (Caspi et al. 2005).

Relations Between Coping and Adjustment

How do coping responses themselves influence well-being? Behind this question lie a number of further methodological issues (Carver 2007), including how often coping should be measured, what time lag should be assumed between coping and health outcomes, and whether

coping should be viewed as a cluster or a sequence of responses.

In meta-analyses of relations between coping and adjustment, effect sizes are typically small to moderate, with coping more strongly linked to psychological outcomes than to physical health (Clarke 2006, Penley et al. 2002). Meta-analyses indicate that most engagement coping relates to better physical and mental health in samples coping with stressors as diverse as traumatic events, social stress, HIV, prostate cancer, and diabetes (Clarke 2006, Duangdao & Roesch 2008, Littleton et al. 2007, Moskowitz et al. 2009, Penley et al. 2002, Roesch et al. 2005). However, less-volitional responses that might be seen as reflecting engagement, including rumination, self-blame, and venting, predict poorer emotional and physical outcomes (Austenfeld & Stanton 2004, Moskowitz et al. 2009). Acceptance in the context of other accommodative strategies aimed at adapting to stress is helpful, but acceptance that reflects resignation and abandonment of incentives predicts distress (Morling & Evered 2006). Disengagement coping typically predicts poorer outcomes, such as more anxiety, depression, and disruptive behavior, less positive affect, and poorer physical health, across an array of stressors (Littleton et al. 2007, Moskowitz et al. 2009, Roesch et al. 2005), although negative effects appear less pronounced in the context of uncontrollable stressors (Clarke 2006, Penley et al. 2002).

Relations between coping and adjustment are also moderated by the nature, duration, context, and controllability of the stressor. In meta-analyses of both children and adults, matching coping to stressor controllability and available resources appears important. Active attempts to solve problems and change circumstances are helpful for controllable stressors but are potentially harmful as responses to uncontrollable stressors (Aldridge & Roesch 2007, Clarke 2006). Similarly, taking responsibility for uncontrollable stressors predicts distress, but this response is unrelated to adjustment to controllable stressors (Penley et al. 2002). In contrast, emotional approach coping (e.g., self-regulation and controlled expression of emotion) is most beneficial for uncontrollable stressors (Austenfeld & Stanton 2004). Avoidance coping is more harmful in response to acute stressors than to chronic stressors, perhaps because acute stressors are more controllable and amenable to problem solving (Penley et al. 2002).

Interplay of Personality and Coping in Predicting Adjustment

Many studies have examined links from personality and coping individually to outcomes, but far fewer have explored the intersection of personality and coping in relation to outcomes. Bolger & Zuckerman (1995) detailed several ways in which personality and coping could jointly influence adjustment. One possibility is mediation: Personality influences coping-strategy selection, which in turn influences outcomes. Another possibility is moderation: Personality influences how well a given strategy works for an individual. A combined possibility involves mediated moderation, with personality influencing both the selection and the effectiveness of coping.

There is evidence supporting coping mediation between personality and adjustment across a range of personality types and outcomes (Bolger 1990, Bolger & Zuckerman 1995, Carver et al. 1993, Holahan & Moos 1990, Knoll et al. 2005, Stanton & Snider 1993). For example, confrontive coping strategies mediate relations between neuroticism and subsequent anger (Bolger & Zuckerman 1995), problem solving mediates relations between reward sensitivity and delinquency (Hasking 2007), and avoidant coping partially explains relations between behavioral inhibition and disordered eating (Hasking 2006). However, inasmuch as direct relationships between personality and coping are modest, coping is unlikely to fully mediate the link from personality to well-being.

Mounting evidence suggests that personality and coping also interact to predict

adjustment, with coping either increasing or decreasing the impact of personality-related vulnerabilities. For example, engagement coping buffers the link between vulnerability to social stress and internalizing problems, and disengagement coping amplifies the link (Connor-Smith & Compas 2002). Avoidant coping amplifies the relationship between high behavioral approach tendencies and outcomes such as delinquent behavior and disordered eating (Hasking 2006, 2007). Certain kinds of emotion-focused coping amplify the link from neuroticism to post-traumatic stress symptoms (Chung et al. 2005).

Personality may influence the effectiveness of coping strategies by facilitating or interfering with successful implementation of the strategy. For example, persons high in extraversion or agreeableness may intrinsically be especially skilled at obtaining social support (Vollrath 2001). Conscientious persons may not only do more problem solving, but also better problem solving. The distress associated with high neuroticism may interfere with successful problem solving. Indeed, persons high in neuroticism appear to experience fewer short-term benefits of engagement coping and more short-term benefits of disengagement than do those low in neuroticism (Bolger & Zuckerman 1995, Connor-Smith & Compas 2004, Dunkley et al. 2003, Gunthert et al. 1999). This may help explain why neuroticism relates to tendencies to disengage despite long-term negative effects of doing so. Neuroticism is also linked to less flexibility in coping across situations (Lee-Baggley et al. 2005), perhaps because distress interferes with selection of optimal strategies.

Implications on Treatment

Differential effectiveness of coping may even have treatment implications. For example, persons low in conscientiousness may benefit from an emphasis on coping persistence. Persons high in neuroticism may benefit from improving emotion regulation (so that unregulated distress will not interfere with planful coping and disengagement will be less tempting) and from practice in matching coping to the unique needs of each situation.

RESEARCH RECOMMENDATIONS

Problems in the Research Methods in Studying the Relations Between Stress & Personality

Despite hundreds of studies, the influence of personality on coping, and of both on outcomes, is only partly understood. Impediments include problems in the measurement of personality and coping, overreliance on cross-sectional and retrospective studies, inadequate consideration of situational factors, and lack of attention to interactions between and among personality traits and coping strategies.

Assessing Coping and Personality

Several reviews have highlighted common problems with coping assessment, including a proliferation of coping measures with structures that cannot be replicated, use of overly broad categories, and reliance on self-report to the exclusion of observational and multiple-informant approaches (e.g., Compas et al. 2001, Skinner et al. 2003). Personality assessment has a long history, and there is more consensus about the structure of personality and optimal personality measures than about the structure and assessment of coping. However, the focus there is almost exclusively on broad traits, despite evidence that specific personality facets account for twice the variance in predicting well-being (Steel et al. 2008). Evidence reviewed above indicates that assessing specific coping responses provides a more nuanced understanding of coping than does assessment of broad engagement, disengagement, or emotion-focused coping. Assessment of specific personality facets should similarly provide a more complete picture of how personality relates to coping.

Attention to models of personality other than the Big Five is also merited. Optimism is a good example of a trait that does not fit neatly into the five-factor framework, but it fits well with the expectancy-value viewpoint discussed as part of the goal-based model of personality. Thus, optimism plugs nicely into the fundamental distinction between engagement and disengagement coping (Solberg Nes &

Segerstrom 2006). Consistent with the importance of that distinction, optimism has proven important in the coping literature.

Abandoning Cross-Sectional Retrospective Research Designs

Although coping is almost universally viewed as an ever-changing response to evolving situational demands, most coping research fails to reflect this view. Many studies assess only dispositional coping, or one-time retrospective reports of overall coping with some stressor. Virtually nothing is known from those studies about how the timing, order, combination, or duration of coping influences outcomes. Tennen et al. (2000) proposed that people typically use emotion-focused coping largely after they have tried problem-focused coping and found it ineffective. This suggests an approach to examining coping in which the question is whether the individual changes from one sort of coping to another across successive assessments as a function of lack of effectiveness of the first response used.

Because the impact of a coping strategy may be brief, laboratory and daily report studies are essential to understanding immediate effects of coping strategies (Bolger et al. 2003). The small number of daily report studies of personality and coping make it clear that the impact of coping changes over time, with responses that are useful one day having a negative impact on next-day mood or long-term adjustment (DeLongis & Holtzman 2005). Laboratory research also permits disentangling stressor severity from individual differences in stress appraisals by use of standardized stressors; it facilitates supplementing of self-reports with observations of coping and assessment of physiological responses.

More generally, little more can be gained from additional cross-sectional studies. Future work should focus on responses to specific stressors, using prospective designs, daily coping reports, or detailed laboratory assessments, all of which facilitate exploration of the impact of the order and timing of coping responses (Tennen et al. 2000).

Incorporating Context

Context influences situational demands, resources, coping response selection, and the costs and benefits of coping responses. Greater attention to the nature of stressors, including severity, controllability, and domain, is essential. Studies should not simply combine participant responses to a wide array of self-generated stressors.

Context may also influence the manifestation of personality, leading relations between personality and coping to differ across domains of stress (Prokopcakova 2004). For example, extraversion and agreeableness should be more relevant to social stressors, and conscientious to stressors requiring planning and persistence. The main relationship between conscientiousness and coping may lie not in the initial selection of coping strategies, but rather in the capacity to persist over time or to problem solve skillfully. Personality may influence coping flexibility and the capacity to tailor coping to situational demands (Vollrath 2001). Research should also explore responses to multiple stressors over time to assess how personality influences the capacity to match coping to problems, change strategies that are not helpful, and persist in those that are.

Although factors such as age, sex, culture, and ethnicity have not been considered in depth here, they affect relations between personality and coping (Connor-Smith & Flachsbart 2007). It seems likely that strategies such as seeking social support will be more beneficial for extraverted women from collectivistic cultures than for introverted adolescent boys from individualistic cultures. Nonetheless, more work is required to understand how age, sex, and culture interact with coping and personality to influence adaptation to stress.

Considering Multiple Traits, Strategies, and Interactions

Finally, most of our understanding is of relations between single personality traits and coping responses. This is a poor reflection of

reality. Personality does not constitute one trait at a time. Similarly, stress exposure and responses to stress are influenced not by one trait at a time but by all of personality at once. Research should consider joint influences of traits on coping, whether by examining personality profiles, controlling for one trait when studying others, or looking at interactions among traits. Similarly, future research should also explore joint and interactive impacts of multiple coping responses. For example, although cognitive restructuring and positive thinking typically predict positive outcomes in controllable situations, in the absence of problem solving they predict poor outcomes (Newth & DeLongis 2004). How important and widespread such contingencies are, in the grand scheme, is relatively unknown.

SUMMARY POINTS

1. Biological (temperament) and goal-based views of human nature specify basic processes that underlie coping.
2. A fundamental distinction is between engagement coping and disengagement coping.
3. Trait optimism predicts engagement coping (positively) and disengagement coping (inversely).
4. The five-factor traits of extraversion, conscientiousness, and openness relate to more engagement coping; neuroticism to more disengagement coping; and conscientiousness and agreeableness to less disengagement coping.
5. Relations between traits and coping are often moderated by other variables (age, severity of stressor, and the time between coping and report of coping).
6. Future research must test for greater complexity in associations (e.g., interactions) among personality traits, coping, and outcomes.

FUTURE ISSUES

1. The role of personality facets, rather than overall broad traits, as predictors of coping and outcomes.
2. Variation in coping responses across a transaction and whether specific responses are more or less useful at different points.
3. Prospective, daily report, and lab-based studies of coping to expand upon cross-sectional knowledge base.
4. More explicitly incorporating the coping context into coping research.
5. Developmental and cultural differences in coping and in relations among personality, coping, and well-being.
6. How traits interact in determining coping responses and how traits and coping interact in determining outcomes.

DISCLOSURE STATEMENT

The authors are not aware of any biases that might be perceived as affecting the objectivity of this review.

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Contents