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**Expanding the Conceptualization and Measurement of Applied Problem Solving and Coping: From Stages to Dimensions to the Almost Forgotten Cultural Context**

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The purpose of this article is to suggest an expansion of the conceptualizations and measurement of applied problem solving and, relatedly, coping. The author

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**Editor’s Note**

Puncky Paul Heppner received the Award for Distinguished Contributions to the International Advancement of Psychology. Award winners are invited to deliver an award address at the APA’s annual convention. A version of this award address was delivered at the 116th annual meeting, held August 14–17, 2008, in Boston, Massachusetts. Articles based on award addresses are reviewed, but they differ from unsolicited articles in that they are expressions of the winners’ reflections on their work and their views of the field.
discusses the evolution of his programmatic line of research over the last 30 years to illustrate the changing landscape in applied problem solving and, to a lesser extent, in the coping literature. Developments from the early stage-sequential models of applied problem solving to the utility of combining major dimensions of applied problem solving and coping are discussed, as are the notion of problem resolution as a way of assessing consequences of coping, and finally, the use of East Asian cultural values to assess collectivistic coping styles. The overlooked and until recently almost forgotten role of culture in the evolution of these general domains of inquiry is highlighted. The author concludes that greater attention to the cultural context will expand psychology’s theoretical models, greatly enhance our empirically based understanding of applied problem solving/coping, and promote our ability to enhance effective problem solving and coping around the world.

Keywords: applied problem solving, coping, cultural context, problem-solving stages, collectivistic coping

How people attempt to cope with and resolve daily life problems and stressful and even traumatic life events has been a focus of inquiry for decades in Western psychology (e.g., Dewey, 1933). The purpose of this article is to suggest an expansion of the conceptualizations and measurement of applied problem solving and, relatedly, coping beyond the existing U.S.-culture-based theoretical models and instruments. Significant progress can be made at this time by studying the effectiveness of applied problem solving and coping relative to an individual’s cultural context, which affects (a) how problems and stressful life events are perceived, (b) allowable problem-solving strategies as well as the parameters of solutions, and (c) the degree to which problem-solving strategies resolve the perceived stressful events. Greater attention to the cultural context of applied problem solving and coping will expand existing theoretical models and greatly enhance the empirically based understanding of applied problem solving, as well as promote psychology’s ability to enhance effective problem solving and coping around the world.

By way of definition, applied problem solving in this article is defined as highly complex, often intermittent, goal-directed sequences of cognitive, affective, and behavioral operations for adapting to what are often stressful internal and external demands (Heppner & Krauskopf, 1987). People typically face an array of demands ranging from what are usually considered simple problems (e.g., selecting from a dinner menu) to often highly complex problems (e.g., selecting a life partner), daily hassles (e.g., locking one’s keys in the car), and highly stressful and even traumatic life events (e.g., sexual assault). Often people do not have the resources to adequately respond to the stressful problems that confront them. As a result, a broad array of helping professionals (e.g., psychologists, social workers, teachers, and medical staff) are involved in assisting people with difficult life problems.

In this article I focus on my line of programmatic research for over 30 years in applied problem solving and a closely related topic, coping, as a concrete illustration of the changing landscape in applied problem solving since the early 1970s; in so doing, I illustrate the growing awareness of the need to study applied problem solving and coping within a cultural context. In short, I discuss the slow and steady increase in knowledge gained through four applied problem solving and coping inventories that my colleagues and I developed: (a) the Problem Solving Inventory (PSI; Heppner & Petersen, 1982), (b) the Problem-Focused Styles of Coping (PF-SOC; Heppner, Cook, Wright, & Johnson, 1995), (c) the Problem Resolution Outcome Survey (PROS; Heppner, Cooper, Mulholland, & Wei, 2001), and (d) the Collectivist Coping Styles inventory (CCS; Heppner et al., 2006). The first three inventories were primarily rooted in European American psychology, which has characterized the applied problem solving and coping literature in the United States during the last 30 years; the latter inventory was primarily rooted in East Asian culture and reflects new developments in this area. I conclude the article with suggestions about how psychology can expand the conceptualization of applied problem solving to include the cultural context. I specifically discuss how researchers have for the most part ignored the pervasive role of the cultural context within applied problem solving and coping and have acted in a culture-blind manner. In essence, I argue that a greater focus on the cultural context within applied problem solving and coping across many different cultures will depict a much more complex mosaic of the culturally nuanced role of applied problem solving and coping within psychology around the globe.

I want to acknowledge the important role of my mentors in facilitating this stream of research, first my master’s advisor, the late Royce R. Ronning, and then my doctoral advisor, David N. Dixon, and later my colleague Charles J. Krauskopf; without their inspiration, mentoring, and collaboration, I might not have been able to understand the utility and complexity of applied problem solving or even have developed this particular line of research. Moreover, I want to acknowledge many colleagues in the United States and other countries as well as many graduate students over the years (many of whom are cited in this review) who played a major role in exploring the complexities of applied problem solving through empirical inquiry and innumerable discussions.

Early Beginnings: The Problem Solving Inventory

My interest in applied problem solving began in 1973 with Professor Ronning, a learning psychologist, who repeatedly
commented, “Counselors ought to know something about how people solve problems.” As I reflected on this and other similar comments during my graduate studies, I became convinced of his thesis. People come to counselors because they have difficult life problems they cannot solve on their own. It made a great deal of sense to me that as psychologists, we should be experts in how people grapple with stressful personal problems. Not only could we better understand the struggles that bring clients into psychotherapy, but we could even identify specific problem-solving activities (e.g., identifying the central features in a presenting problem) in which clients might confront an impasse that would prevent effective problem solving. Such knowledge and skills would surely be helpful in assisting clients in resolving their impasses. Subsequently, I began to examine the applied problem solving literature for empirically based knowledge that I might apply as a budding psychotherapist. However, much of the earlier research on problem solving examined how participants responded to impersonal laboratory problems (e.g., water jar and string problems; Wickelgren, 1974); I was not able to apply much of this literature to my applied work with clients. At this time, several scholars noted that little was known about how people resolved their life problems (Horan, 1979; Sternberg, 1982). Among the early research on applied problem solving, perhaps the most inspiring writing for me was that of D’Zurilla and Goldfried (1971), who described an applied stage-sequential problem-solving model. It is important to note that the cultural context surrounding an individual’s problem solving during this era was rarely, if ever, discussed.

In the last years of my graduate training (1977), I enrolled in a psychometrics class that required students to develop items to assess a new construct of their choosing (perhaps it was a chance event or my fate; this assignment dramatically affected my future research in applied problem solving and coping). My good friend and classmate Chris Petersen and I decided to develop an applied problem solving inventory centered on the five-stage-sequential model, which was a typical theoretical model based on European American psychology at this time. A few years later we published our initial psychometric research on what we simply called the Problem Solving Inventory (Heppner & Petersen, 1982), which has now been distributed by Consulting Psychologists Press (Heppner, 1988) for the past 20 years. The factor analysis of the PSI items did not support the five-stage-sequential model of problem solving; rather, the items from the stages seemed to load almost randomly across three factors. The factors seemed to reflect people’s global appraisal of how they assessed their problem-solving capabilities, their awareness, and their evaluation of their problem-solving skills and style (but were distinct from problem-solving skills). In the cognitive revolution in psychology of the late 1970s and 1980s, there was growing interest in how individuals appraised their abilities, or meta-cognitive variables (Antonovsky, 1979; Bandura, 1982; Brown, 1977). Butler and Meichenbaum (1981) directly applied meta-cognitive variables to applied problem solving, hypothesizing that an individual’s appraisal of his or her problem-solving skills would affect not only his or her problem-solving performance but how and whether he or she would even attempt to solve a particular stressful situation. On the basis of thousands of experiences, people develop general beliefs and evaluations about themselves as problem solvers, such as “I am not good at this . . . this is too hard for me.” As such, problem-solving appraisal as measured by the PSI was conceptualized as a person variable within the global person–environment models (see Dohrenwend & Dohrenwend, 1978; Heppner & Krauskopf, 1987) and specifically as a generalized set of beliefs or expectancies about problem solving within social learning theory (Heppner, 1988). Thus, problem-solving appraisal as measured by the PSI was conceptualized as a general rather than a situation-specific appraisal of one’s problem-solving capacities, a key element in establishing perceptions of control (Bandura, 1986) in the predominantly White U.S. culture. The potential power of self-evaluation in problem solving is nicely reflected in Mahatma Gandhi’s observation, “If I have the belief that I can do it, I shall surely acquire the capacity to do it even if I may not have it at the beginning” (Jergen & Deats, 2005, p. 108).

More specifically, the PSI consists of 32 items that comprise three factors: (a) Problem Solving Confidence, defined as one’s belief in one’s problem-solving abilities; (b) Approach–Avoidance Style, defined as one’s general tendency to approach or avoid problem-solving activities; and (c) Personal Control, defined as one’s beliefs in one’s emotional and behavioral control while solving problems. All factors and the total score have been found to have acceptable internal consistency estimates and stability coefficients across a number of populations and cultures (see Heppner, 1988; Heppner & Wang, 2003; Heppner, Witty, & Dixon, 2004). Moreover, the factor structure has been replicated across numerous samples and several cultures (see Heppner et al., 2004).

A great deal of empirical evidence from 130 investigations supports the construct, concurrent, and discriminant validity of the PSI (see Heppner, 1988; Heppner & Lee, 2002, in press; Heppner et al., 2004). The evidence has accrued from both qualitative as well as large-scale and sometimes highly controlled quantitative studies, mostly conducted in the United States but some conducted internationally as well. In addition, the PSI has been translated into over a dozen languages (e.g., Soresi, 1998).

For example, the empirical research findings from over 80 investigations (see Heppner et al., 2004) indicate that there is a pervasive link across populations and cultures
between the PSI and several indices of psychological distress, such as depression, anxiety, hopelessness, suicidal behavior, and eating disorders. These findings have been obtained across a range of cultures (e.g., Italy, Turkey, Hong Kong, South Africa, Canada) and across different populations within the United States (e.g., Latino/a, African American). The PSI has also been linked in 13 studies to physical health (see Heppner et al., 2004), in particular to self-reported health outcomes as well as behavioral outcomes such as decubitus ulcers. There is also evidence that the PSI outperformed two standard neuropsychological problem-solving measures in differentiating traumatic-brain-injured (TBI) patients from uninjured groups, detecting treatment changes in TBI patients’ problem solving, and predicting a major rehabilitation outcome, community independence and integration (e.g., Rath, Hennessy, & Diller, 2003).

In the vocational realm, the research across 13 studies (see Heppner et al., 2004) indicated that those who appraise their problem solving negatively (e.g., those lacking problem-solving confidence and having a tendency to avoid problems) report more career indecision, less rational decision making, less knowledge and certainty with career-related problems, as well as more career burnout and career stress. These findings linking the PSI and career-related outcomes have been conducted with a wide variety of U.S. samples, including racial and ethnic minority groups. Work is under way in Italy and China to understand these relationships from a cross-cultural perspective (e.g., Tian, Heppner, He, & Hou, 2008).

In addition, people’s responses on the PSI have been clearly related to how they respond to stressful life events and problems in their lives. That is, across over 30 studies (see Heppner et al., 2004), people who appraise their problem solving negatively tend to lack follow-through in grappling with their problems and often quickly give up. They tend to attribute successful problem solving to their ability but tend not to believe in their abilities. They often rate themselves as less motivated to deal with their problems and subsequently avoid them. They tend to feel powerless when dealing with interpersonal problems, to engage in more task-inhibiting and emotion-focused self-statements, and to avoid altering the cause of the problem. Sometimes they tend to act impulsively, have difficulty making decisions, and have a lack of awareness of, and make less use of, helping resources such as college counseling centers.

In sum, the PSI has become one of the most widely used applied problem-solving inventories in the United States (Nezu, Nezu, & Perri, 1989). In addition to the associations briefly mentioned above across 130 studies, the patterns in the cognitive as well as the affective and behavioral domains suggest that a positive problem-solving appraisal is consistent with more effective problem solving; thus, although problem-solving appraisal should not be considered synonymous with problem-solving skills, the accumulated research over 25 years suggests that for many individuals, problem-solving appraisal does seem to overlap with problem-solving skills (see Heppner et al., 2004, for details and exceptions). In short, the PSI can be a powerful predictor of human behavior (e.g., in one study almost 70% of the variance in suicidal ideation was predicted by the PSI; Dixon, Heppner, & Rudd, 1994).

Because the construction of the PSI was based on European American psychology and research conducted primarily in the United States, it is unclear whether more useful measures of problem-solving appraisal were, for example, based on African American psychology or Chinese psychology. Thus, additional research is needed to examine the utility of other measures of problem-solving appraisal based on the cultural values of a wide range of other cultural groups.

Problem Resolution Within Problem-Focused Coping

In the early 1990s, a number of patterns were emerging in the U.S.-based applied problem solving and coping literature. For example, the accumulated empirical research strongly indicated that applied problem solving and coping moderate the effects of stress on both psychological and physical well-being (e.g., Zeidner & Endler, 1996); thus, it is not simply stress per se, but rather how one responds to the stressors, that affects adaptational outcomes. There was also a growing consensus in the literature on (a) the important distinction between problem-focused coping and emotion-focused coping (Endler & Parker, 1990) and (b) the approach versus avoidance dimension (e.g., Cook & Heppner, 1997; Tobin, Holroyd, Reynolds, & Wigal, 1989). However, there was little agreement on the optimal conceptualization of coping (e.g., Rohde, Lewinsohn, Tilson, & Seeley, 1990), and as a consequence, a wide array of applied problem solving and coping instruments appeared in the literature. Psychometric concerns were also raised about item ambiguities that could easily have multiple meanings with very different implications (Carver, Scheier, & Weintraub, 1989). For example, many items on coping inventories assessed whether a person engaged in a certain activity, such as “talked to a friend.” Such lack of specificity in items could result in very different consequences; for example, talking to a friend could result in the person receiving some much needed emotional support, receiving some very bad advice, or engaging in a social interaction that allowed him or her to temporarily escape from the problem (Heppner et al., 1995). These and other methodological concerns stimulated my research team to develop an inventory that focused on (a) a broader conceptualization of problem-focused coping (operationalized as involving cognitive, behavioral, and affective activities) aimed at altering the cause of stressful problems and (b) operationalizing the approach–avoidance dimension in terms of...
whether the short-term consequences of the problem-solving activities moved the person toward or away from resolving the stressful problem. Our thinking in the mid-1990s was reflective of constructs such as adaptive coping and problem resolution, which appeared in the literature at that time (e.g., Zeidner and Saklofske, 1996) and which seemed to bridge the applied problem solving and coping literatures.

Consequently, we developed an inventory that examined the utility of the consequences of problem-focused dispositional coping activities that tended to inhibit or facilitate the resolution of problems (the PF-SOC; see Heppner et al., 1995, for details on operationalizing of constructs). Again, it is important to note that, as was typical during this time, the conceptualization of the inventory and all items were based on a European American psychology, without explicit consideration of cultural context. The exploratory and confirmatory factor analyses across two studies revealed three problem-focused coping styles (reflective, suppressive, and reactive). The Reflective Style emphasized approach-oriented cognitive activities and was defined as the tendency to examine causal relationships, plan, and be systematic. Both the Suppressive Style and Reactive Style factors reflected avoidant activities within problem-focused coping. The Suppressive Style reflected denial, suppression, escapism, and, in essence, disengagement activities and was defined as a tendency to deny problems and avoid direct coping activities. The Reactive Style reflected strong emotional responses, distortion, impulsivity, and cognitive confusion and was defined as a tendency to give emotional and cognitive responses that deplete the individual or distort coping activities (see Heppner et al., 2004). Most important, the results suggested that after the variance from frequently used applied problem solving (PSI) and coping inventories (Coping Styles Inventory; Tobin et al., 1989) was removed, the Suppressive and Reactive factors added from 4% to 14% variance in predicting measures of psychological distress (e.g., depression). The Reflective factor, however, did not add to the predictive equations.

On the basis of the results of Heppner et al. (1995), and in order to develop a more complex and broader model of how people respond to stress, I began to think in terms of creating latent variables with constructs that had strong empirical support and that assessed relatively unique dimensions of applied problem solving and coping. To this end, Wei, Heppner, and Mallinckrodt (2003) utilized the PSI along with the Suppressive and Reactive Style factors to create a latent variable to examine potential mediating effects of perceived problem solving/coping between adult attachment and psychological distress. In essence, we employed two different dimensions of applied problem solving and coping, a measure of problem-solving appraisal along with a measure of problem-focused coping that assessed progress toward resolution of the problem. The results indicated that the latent variable fully mediated the relationship between attachment anxiety and psychological distress and partially mediated the relationship between attachment avoidance and psychological distress. In essence, these results expanded the relations between attachment and psychological adjustment not only to explicitly include the way people respond to stressful problems but also to support the utility of combining two very different dimensions of U.S.-based applied problem solving and coping constructs to predict psychological distress within a predominately White U.S. sample (Wei et al., 2003).

Applications of Applied Problem Solving

Applied problem-solving models have long been considered as having a great deal of applicability for practitioners, such as educators (Dewey, 1933) and psychotherapists (Krumboltz, 1965). I next briefly discuss the development of a psychotherapy problem resolution outcome scale (the PROS; Heppner et al., 2001), which, again, was based on European American psychology.

A common goal and outcome of psychotherapy in the United States and many other countries (regardless of most theoretical orientations) has been to effectively resolve clients’ presenting problems (see Heppner & Krauskopf, 1987). Toward this end, our research team published an article (Heppner et al., 2001) that described the construction of a generic psychotherapy outcome measure that provided a non-symptom-based, multidimensional assessment of what we considered the most basic and central therapeutic outcome, resolution of clients’ presenting problems. To guide the development of the PROS, we utilized advances in more complex and complete models of human information processing (e.g., Anderson, 1983), assessed micro-level problem-solving strategies, used self-appraisal of one’s problem-solving capacity to assess macro-level assessment of applied problem solving, and relied on Zeidner and Saklofske’s (1996) conceptualization of adaptive or effective coping to guide our assessment of clients’ problem resolution. Again, the conceptualization of the inventory as well as the items were rooted in contemporary European American psychology.

Exploratory and confirmatory factor analyses were used to identify four factors or dimensions of client problem resolution: Problem-Solving Strategies, Problem-Solving Self-Efficacy, Problem Impact on Daily Functioning, and General Satisfaction With Therapy (see Heppner et al., 2001, for methodological and statistical details). In addition, we conducted a longitudinal investigation involving a prospective design with normed instruments to provide several estimates of construct and convergent validity of the PROS. The results suggested that increases in clients’ resolution of their presenting problems (throughout the course of therapy and up to 6 months posttherapy) were
positively related to well-established measures of the counseling process (positive working alliances, perceptions of credibility) and outcomes (goal attainment scaling) in a theoretically consistent manner. Moreover, Zeidner and Saklofske’s (1996) adaptive model of coping seemed to be a useful model in part to conceptualize outcomes of psychotherapy. Thus, client problem resolution rooted within European American psychology seems to be related to counseling effectiveness as conceptualized in U.S. culture. It is unknown how client problem resolution might be operationalized in other cultural contexts, which merits additional research.

Collectivist Coping Styles

As I became more and more aware of cross-cultural differences in the late 1990s, and especially the core values and worldviews of different cultures, I became increasingly cautious with regard to the generalizability of my Western-based conceptualization of applied problem solving and coping. The literature on applied problem solving and coping published in U.S. journals consisted almost exclusively of studies conducted in the United States, and most of these contained few references to the cultural context. It was a critical turning point in my thinking when I began to understand the pervasive role of culture in applied problem solving and coping.

In 2002, both my wife (Mary) and I were Fulbright scholars at National Taiwan Normal University (NTNU) in Taipei for six months. At this point, I had acquired some basic knowledge of Taiwan’s culture since this was my third professional trip to Taiwan, and I had worked closely with three doctoral advisees from Taiwan for the past seven years. Because Taiwan was the fifth country in which I had lived and worked professionally (beginning in 1985 as a Fulbright scholar in Sweden), I also had acquired knowledge of different cultural norms and values, as well as a growing sensitivity to the role of culture in human behavior.

Not coincidently, as part of our Fulbright experiences, Mary and I had proposed to develop what we initially referred to as an Asian ways of coping inventory. I had been becoming increasingly aware of the vast majority of studies within applied problem solving and coping that either (a) ignored the cultural context in conceptualizing studies and utilized primarily White U.S. samples or (b) included U.S. racial/ethnic minorities but rarely used a racial/ethnic minority cultural context to frame the investigation. Moreover, the majority of the applied problem solving and coping inventories were based on Euro-American psychology. Given my growing knowledge of primarily East Asian cultures, I was becoming increasingly aware of Asian problem-solving strategies that the U.S.-based inventories were not assessing. It seemed to me that it could be very useful to identify Eastern-based constructs related to applied problem solving and coping, which potentially could facilitate the development of more comprehensive theories about the role of problem solving and coping within psychological adjustment in the United States and beyond (Heppner et al., 2006).

For six months prior to leaving for Taiwan, our research team (consisting of one Taiwanese faculty member, three of my doctoral students [one from Taiwan, two from South Korea], and Mary and myself) began the process of identifying the conceptual basis to guide item development (see Heppner et al., 2006, for methodological details). Briefly, three conceptual bases guided the development of the inventory (the CCS). First, the item development was based on Asian values, in particular, East Asian values as we narrowed the scope of the inventory. Second, the items were based on two types of control: primary control and secondary control (see Weisz, Rothbaum, & Blackburn, 1984, for more details). Primary control, which is more prominent in Western countries, is control through direct and active influence, such as problem-focused coping activities directed at altering the stressor. Secondary control, which is more prominent in Eastern countries, is control through accommodating and reframing existing realities, leaving them unchanged but exerting control over their personal and psychological impact. Finally, the inventory was again grounded in Zeidner and Saklofske’s (1996) adaptational model of coping and problem resolution.

Item development for this study was very time consuming and sometimes confusing for all the team members, in large part because of the different worldviews of coping we each brought to the development of the items but also because of the lack of knowledge Mary and I had about East Asian cultures in general and applied problem solving and coping in these cultures in particular. The more our work progressed, the more we learned about East Asian coping activities, such as accepting traumatic events as fate as well as the critical importance of maintaining harmony in interpersonal situations. Sometimes after our team meetings, Mary and I would reflect on our rich and fascinating team discussions; moreover, we became increasingly aware of the impact of the multifaceted array of collectivistic cultural values and norms (e.g., interpersonal harmony, filial piety, saving face) that affected various problem-solving strategies. In addition, over time we also acquired a deeper awareness of our own ethnocentricity and of how our cultural biases made it difficult for us to totally understand how the values of another culture not only affected the development of different worldviews but resulted in similar and different ways of processing information, making meaning of events, and in essence a web of human behaviors that were intertwined within the cultural context. Although we of course knew culture affects human behavior on an abstract level, and we had a surface-level understanding of various Asian values, customs, and norms, we
were largely unaware of the complexities within particular East Asian cultures and how specific behaviors were a function of a confluence of values and norms. In short, our growing awareness of East Asian culture was deeply gratifying both personally and professionally, and at the same time our ignorance of the complexities within Asian cultures was humbling. In addition, our discussions and the problem-solving literature suggested that there might be different coping patterns across different types of problems, so we structured the inventory to be situation specific and had respondents select 1 of 15 traumatic events as a reference for all of their ratings.

With the help of one of our co-authors (Li-fei Wang) at NTNU, we collected an initial data set from 344 Taiwanese college students. We initially conducted an exploratory factor analysis, followed several months later by a confirmatory factor analysis on 2,889 college-age participants from a geographically representative sample around the island of Taiwan. The results suggested five factors (see Heppner et al., 2006, for methodological and statistical details). The first factor was labeled Acceptance, Reframing, and Striving (ARS) and reflected a blend of acceptance, fatalism, efficacy, and interpersonal harmony items. Sample items such as “told myself that I could make my plans and ideas work” coexisted with other items such as “accepted my fate in life” and “waited for time to run its course.” Such a mix of items has not been reported in U.S.-based applied problem solving and coping inventories. In fact, upon seeing the results from the exploratory factor analyses, my Western perspective led me to suspect that the results were a function of some type of computational error in conducting the factor analyses! Double checking our statistical analyses only served to confirm the original results. But consultations with Taiwanese students and faculty suggested that this was exactly how they had been taught to cope with their problems.

Other factors were labeled (a) Family Support, which included a mix of seeking family support as well as respect and trust of elders/ancestors’ guidance, (b) Religion–Spirituality, in which all items represented secondary control, (c) Avoidance and Detachment, which reflected detachment, saving face, and protecting parents, and (d) Private Emotional Outlets, which reflected confidential or anonymous coping strategies (e.g., seeking professional help, using Internet chat rooms).

In sum, the results from the exploratory and confirmatory factor analyses suggested collectivistic coping factors that reflected a mix of primary and secondary control, even within the same factor, and represented different constellations of items than are typically found in Western countries. In essence, the results of this study illustrated that cultural assumptions, values, and philosophies shaped not only the items of the CCS inventory but also the coping constructs. Undoubtedly our Euro-American-based theories, cultural values, and assumptions also shaped the items and factors on the PSI, PF-SOC, and PROS (and other U.S.-based coping inventories)—but there was little conscious attention to the cultural context.

On the basis of the results of the Heppner et al. (2006) study, my colleague (Meifen Wei) and I returned to the notion of examining the predictive utility of relatively unique constructs that assess dimensions of applied problem solving and coping. For example, a recent study (Wei, Heppner, Ku, & Liao, 2008) examined the utility of using the Eastern-based CCS and the Western-based PF-SOC with Asian students studying in the United States. Specifically, Wei et al. examined the association between the impact of racial discrimination and depression, and whether a dispositional and Western coping inventory (as measured by the Suppressive and Reactive factors of the PF-SOC) versus a situation-specific Eastern coping inventory (as measured by the CCS, which was modified specifically to focus on racial discrimination) would moderate this association. Briefly, the results supported the existence of the Western- and Eastern-based moderators in attenuating the relationship between perceived racial discrimination impact and depression. Specifically, the results indicated that a high perceived utility of Family Support (CCS) in responding to instances of racial discrimination reduced the association between perceived racial impact and depression. In addition, the results suggested that Asians who reported a high level of utility related to Avoidance and Detachment (CCS) were actually more vulnerable to depression as the perceived impact of racial discrimination increased. Finally, the results suggested that a strong dispositional tendency to use Reactive Style coping (PF-SOC) strengthened the association between perceived racial discrimination and depression. Although reactive and impulsive coping activities are usually considered indicators of ineffective coping in the predominant U.S. culture, they may be considered even more so from an Asian perspective that values emotional self-control and regards it as a sign of maturity.

In sum, the study by Wei et al. (2008) indicated that the combination of an Eastern-based and discrimination-specific coping inventory with a Western-based dispositional measure of coping not only allowed for complex relationships (moderators) among the constructs but also matched the cultural worldview of the East Asian sample (i.e., culture specific). In addition, the Western-based Reactive Style also by chance seemed to assess an important Asian value of emotional regulation (control). This study not only illustrates the utility of culturally relevant and culture-specific coping inventories but also highlights the utility of broadening the conceptualization of applied problem solving and coping across different cultural groups and employing multiple constructs that assess different dimensions of coping to identify more complex and nuanced relations. Although these finding suggest more complex models of
applied problem solving and coping, additional research is needed to examine the external validity of these findings for similar and different cultural groups.

**Concluding Comments: The Largely Ignored Cultural Context**

The cultural context is highly relevant for psychologists. It is obvious that culture affects human behavior and that cultural transmission is functional for survival. Few would dispute the pervasive role of culture (Heine & Norenzayan, 2006). Moreover, given the development of multicultural psychology in the United States in the last 20 years and the adoption of the Multicultural Guidelines by the American Psychological Association (2003), it is abundantly clear that cultural differences within diverse U.S. populations as well as cross-nationally are significant and essential for psychological research, theory, and applied practice.

U.S. scholars have significantly enhanced our knowledge bases in applied problem solving and coping. Similarly, few would dispute that in the last 30–40 years, there has been significant progress in European American psychology with regard to the important role of applied problem solving and coping in responding to stressful life events and its buffering effect on psychological adjustment and physical health. For example, psychologists now understand that several constructs of applied problem solving (e.g., problem-solving appraisal) and coping (e.g., problem-focused coping), mostly within the dominant U.S. culture, predict a great amount of the variance in a host of psychological adjustment and health indices, career planning and adjustment, and even psychotherapy outcomes; this conclusion is evident not only from my own programmatic line of research briefly summarized here but also, and much more abundantly, from the larger body of applied problem solving and coping literatures (see, e.g., Folkman & Moskowitz, 2004; Heppner et al., 2004; Somerfield & McCrae, 2000; Zeidner & Endler, 1996). There is no doubt that there has been a great deal of excellent research in applied problem solving and coping within European American psychology. But it is now time to challenge ourselves to move our research forward substantially.

The cultural context affects all aspects of applied problem solving and coping. Given the powerful and pervasive role of culture in human behavior, one would logically expect culture to affect how people learn to cope with all phases of life’s problems and stressors. In essence, there is ample evidence that cultural norms, customs, and values affect what are considered to be (a) problems and stressors, (b) allowable coping strategies, (c) acceptable solutions, and (d) indicators of psychological adjustment (see Cheung, 2000; Wong & Wong, 2006). For example, the most distressing events experienced by U.S. students (e.g., accidents or natural disasters, divorce of a parent or self; Gershuny, Najavits, Wood, & Heppner, 2004) are quite different from those identified by Taiwanese college students (e.g., academic pressure, social isolation or ostracism; Heppner et al., 2006). Culture also affects the selection of coping strategies; for example, how or the manner in which people approach an interpersonal conflict differs greatly across individualistic and collectivist cultures. For instance, in Chinese cultures, values such as relational order, interpersonal harmony, and filial piety often affect how interpersonal conflicts are handled, and saving face (for oneself and the other) is often a primary consideration (see Yeh, Arora, & Wu, 2006). Similarly, in East Asia, emotional regulation or control is often regarded as a sign of emotional maturity. Conversely, in the dominant U.S. culture, authentic emotional expression is often encouraged, and assertiveness is often promoted and often regarded as Your Perfect Right (Alberti & Emmons, 1974).

A recent qualitative study of Taiwanese sexual assault survivors by one of my former doctoral students (Y.-W. Wang, 2004) dramatically illustrates the pervasive influence of culture and how the cultural context can affect how problems are perceived, what coping strategies are employed, and the types of acceptable solutions. The combination of several cultural values influences the perceived nature of sexual assault in Taiwan, such as the critical role of family in general, the reflection of children’s achievement on the family, interpersonal harmony (especially within the family), family shame and saving face, differential gender roles and the importance of virginity for women, and beliefs of being “ruined” or “stained” if virginity is lost before marriage.

The results of the study suggested that survivors described significant stress related to gender-specific cultural values of virginity and chastity. For example, the survivors’ comments included the following: “I was worried no one would want to marry me” and “Defending my chastity is more important than being alive.” The latter comment suggests a very powerful cultural lens that would undoubtedly affect a number of subsequent coping activities. Likewise, coping strategies were also tied to cultural values of interpersonal harmony, saving face, and respect, and thus these values determined which coping strategies were deemed allowable or acceptable within the Taiwanese cultural context. For example, some women used coping strategies such as denial to promote short-term gains, as evidenced in comments such as “I told myself nothing happened” or “I told myself that my father [the perpetrator] was just concerned about me.” In essence, the women would conceal the event in order to adhere to cultural values and avoid shaming their families, fulfill ideals of filial piety, maintain family harmony, and place the families’ needs above their own. In some cases, women marry their rapists, as this solution lessens the social consequences and allows the families to save face (see Luo, 2000). In short,
there is more than ample evidence that the cultural lens affects perceived stressors, coping strategies, and allowable solutions.

**Psychologists in the United States have overlooked or ignored the cultural context.** Nonetheless, U.S. scholars in applied problem solving and coping have tended to act in a culture-blind manner, and for far too long we have overlooked or ignored the cultural context in the vast majority of our research. In general, we have tended to build theoretical models that assumed a monocultural context (see also Folkman & Moskowitz, 2004; Heppner et al., 2004; Somerfield & McCrae, 2000) and have overlooked cultural values in how non-White U.S. groups as well as other cultures around the world respond to stressful life problems. Subsequently, the research conclusions are often not qualified within a cultural context, which promotes a tendency to assume the universality of our findings across U.S. groups as well as cross-nationally. Consequently, the accumulated empirical knowledge bases oversimplify and homogenize the complexities in applied problem solving and coping across different cultural groups. In short, very important information is lost when researchers ignore the role of cultural values and norms in understanding applied problem solving and coping.

**Constructs based solely on the dominant U.S. culture do not tell the whole story.** It is necessary to expand our conceptualization of how people respond to stressful life events beyond the existing U.S.-based theoretical models. Constructs based on the dominant U.S. culture do not tell the whole story about coping for all cultural groups in the United States and certainly not for different cultures around the globe. Thus, it is essential that the cultural context be included in future conceptual models of applied problem solving and coping, which will reveal not only the multifaceted nature of coping across different cultures but also that our theoretical models may look different across different cultures. Including culture-specific constructs paints a more accurate and complex picture of applied problem solving and coping (see Heppner et al., 2006; Tian et al., 2008; Wei et al., 2008) and will lead to vastly greater theoretical complexity over time.

**The biggest gains may be in focusing on applied problem solving and coping in other cultures but not repeating the mistakes of the past.** Scholars have underscored the necessity to move beyond “testing the generalization of European-American theories and findings to other cultural contexts” (Wong & Wong, 2006, p. 6). In essence, a very common strategy has been to transport U.S.-based inventories to other countries and to conduct confirmatory factor analyses to determine construct stability. Another strategy has been for psychologists from other countries to develop new inventories based on U.S.-based coping conceptualizations and inventories, which has often resulted in identical factor names (Zhao, Tian, He, Heppner, & Schwab, 2008). Construct stability is not construct equivalence, nor is it necessarily fully sensitive to another cultural context. Thus, there is a clear need to develop a broader array of instruments that assess culturally sensitive constructs to elucidate how different cultural groups in the United States and around the world respond to difficult and stressful life problems. Research is particularly needed to identify applied problem solving and coping constructs indigenous to specific cultures.

**The domain of culturally sensitive applied problem solving and coping has been largely unexplored.** At this point, the domain of cross-cultural applied problem solving and coping has been largely unexplored. For example, Wong, Wong, and Scott (2006) identified several issues that merit attention in the study of cross-cultural stress and coping, such as (a) suffering (or enduring), (b) collective coping, (c) personal transformation, (c) religious, spiritual, and existential coping, and (d) coping efficacy and outcomes. With regard to the latter, significant progress in applied problem solving and coping might be achieved by establishing lines of research that examine culture-specific indicators of problem-solving effectiveness (e.g., problem resolution as this construct may be conceptualized across different cultural groups) relative to the cultural context (values, norms, and customs) surrounding different types of stressors, coping strategies, and potentially allowable solutions. Thus, coping effectiveness must be defined relative to the cultural context and thus will manifest differently across different cultural contexts. Such research needs to incorporate not only cultural values and norms but other contributing factors (e.g., social class, worldview). Methodologically, such research might also identify relatively unique constructs that assess different applied problem solving and coping dimensions, including situation-specific and dispositional measures. Qualitative research paradigms may be particularly helpful in identifying culturally sensitive constructs that might enhance our understanding of this complex process (see, e.g., Y.-W. Wang, 2004).

**The biggest challenge may be ethnocentrism; we must train ourselves and the next generation.** There are many significant challenges in identifying, assessing, and investigating culturally sensitive constructs in applied problem solving and coping. The biggest challenge may be ethnocentrism in the United States (see Marsella & Pedersen, 2004) as well as around the world. To meet this challenge, scholars have called for a range of activities, such as a greater focus on international education (see Marsella & Pedersen, 2004). Suffice it to say, these are not easily solved problems, but they are solvable problems. From my experience, cross-national research teams offer great potential for enhancing one’s cultural sensitivities on particular research topics (see L.-F. Wang & Heppner, in press). Research teams whose members consist of different cultural groups and have diverse worldviews have some distinct
advantages in conducting culturally sensitive research in applied problem solving and coping. Moreover, if we can be humble and culturally sensitive learners in this process, we can learn a great deal from our international colleagues. The cultural complexity of the research increases when research teams are encouraged to incorporate the cultural context into all phases of the research process (e.g., conceptualization of the research problem, development of the research questions, methodological issues).

I do acknowledge that such cultural experiences can be exhilarating as well as difficult and frustrating; however, in my view, it will be essential for the development of psychologists in the future. It is crucial that psychology educators and students alike make concerted efforts to explore a multitude of learning opportunities that promote cultural awareness in future generations of psychologists around the world. From my experience, the more creatively I as a psychologist can explore various cultural contexts, the more effective I become as a teacher, mentor, and scholar. If we agree as psychologists that we can no longer overlook the powerful role of culture in human behavior, then it is imperative that we train the next generation of psychologists to acquire knowledge of diverse cultural perspectives and keenly understand the multifaceted role of culture in human behavior.

Cultural sensitivity will strengthen our research, training, and practice. How people solve problems within their cultural contexts is a critical area of study for applied psychology. Scholars will have many rich and exciting opportunities in the future to expand the conceptualization of applied problem solving and coping within different cultural contexts. Overall, U.S. scholars have added greatly to the knowledge bases on applied problem solving and coping in the United States and abroad. However, these contributions are but small pieces in the vast global mosaic of applied problem solving and coping. Programmatic research is needed in other cultures and countries to add more pieces to this evolving picture. Conducting culturally sensitive research in many cultures will greatly expand the depth and richness of our knowledge bases and theoretical models so they more accurately depict how people resolve traumatic and stressful life problems around the world. In the end, studying the cultural context across many cultures will make us better psychologists—better scholars, teachers, mentors, therapists, consultants—and better people.

References


