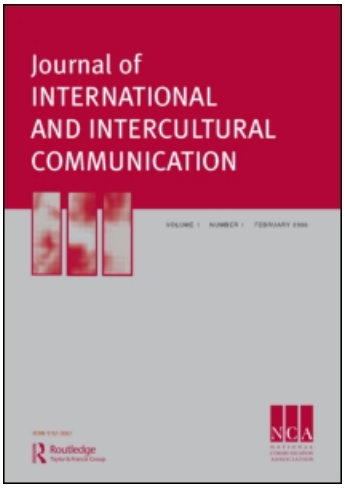

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Cultural Similarities and Differences in Seeking Social Support as a Means of Coping: A Comparison of European Americans and Chinese and an Evaluation of the Mediating Effects of Self-Construal

Steven T. Mortenson, Brant R. Burleson, Bo Feng & Meina Liu

Two studies examined similarities and differences in how European Americans and Chinese view seeking social support as a strategy for coping with an upset. Participants (407 European Americans and 595 Chinese) completed instruments assessing the appropriateness of seeking social support and several self-reliant coping strategies (problem-solving, emotion management, avoidance) when confronting upsets. Both studies detected cultural and sex differences in support seeking. However, there were also substantial similarities in coping responses. Americans viewed seeking support as a more appropriate coping strategy than did Chinese. However, both Americans and Chinese viewed seeking support as more appropriate than the solitary coping strategies of avoidance and emotion management. Culture moderated sex differences in support seeking; American women viewed seeking social and emotional support as more appropriate than American men, whereas few sex differences were evident among the Chinese samples. Individual differences in interdependent and independent self-construals

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partially mediated cultural and sex differences in support seeking in Study 2; in addition, culture moderated the mediating effects of self-construal, with self-construal mediating sex differences among Americans but not among Chinese. The cultural and sex differences in self-construals, however, did not conform to theoretical expectations. Moreover, cultural and sex differences in self-construals were quite small in magnitude.

Keywords: Emotional Support; Cultural Values; Independent Self-Construal; Interdependent Self-Construal; Individualism; Collectivism

Supportive interactions are ubiquitous in human life. At one time or another, everyone experiences problems that result in upset and distress. Frequently, people cope with these difficult times by seeking support from others, especially from those in their social networks to whom they feel close. In the last 20 years, substantial research has explored the dynamics involved in seeking, providing and receiving support (see Burleson & MacGeorge, 2002; Cunningham & Barbee, 2000). Only recently, however, have researchers begun to consider how cultural factors may influence essential support processes and outcomes.

Although increasing research has examined cultural influences on the provision and reception of support (e.g., Pines & Zaidman, 2003), comparatively little research has examined cultural variations in *seeking* support. This represents an important gap in our understanding; support seeking has a major influence on processes and outcomes associated with both support provision and support receipt (e.g., Goldsmith, 2000).

There are good reasons to anticipate both similarities and differences across cultures in the seeking of support. People in all cultures have upsetting things happen to them, experience and express emotions, and turn to others for assistance in times of need. Although these processes are cultural universals, *how* people react to an upsetting event, experience and express emotion, and seek support may vary—perhaps substantially—across cultures. Thus, we report two studies that assessed cultural variations in support seeking as a means of coping with distress. Our studies also examined sex differences in support seeking and whether culture moderated these sex differences. Further, we sought to explain observed cultural differences in support seeking by examining whether individual differences in self-construal mediated the effects of culture and sex on seeking support.

The Support-Seeking Process: Its Nature, Significance, and Challenges

Support seeking is commonly viewed as a way of coping during difficult or stressful situations (Chang, 2001). Of course, people also routinely employ solitary (i.e., nonsocial) means of coping with upsetting events. Scholars of stress and coping processes (e.g., Lazarus, 1999) generally identify three classes of solitary coping behaviors: emotion management (suppressing or changing one's feelings), problem

management (actively seeking to solve the problem that produced the upset), and avoidance (redirecting attention to a different focus; ignoring the upsetting event).

Support seeking differs from other coping strategies in its fundamentally social character. Research demonstrates that support-seeking efforts are one of the most important ways in which the support process is initiated. As Cutrona, Cohen, and Igram (1990) note, in many cases "support-communicating behaviors do not materialize automatically without some indication from the stressed individual that he or she is in a state of need" (p. 553). Thus, people often must seek support when they need it. As the most common "first act" in the support process, support seeking often sets the stage for the entire supportive communication process and is, thus, an important determinant of whether any support is received, the type of support received (e.g., emotional vs. instrumental), the quality of that support, the effectiveness of received support with respect to the problem at hand, and the personal and relational consequences associated with seeking, providing and accepting support (Cunningham & Barbee, 2000).

Support seeking is a dynamic process that can be examined from many perspectives. In the current studies, we focus on two critical aspects of support seeking. First, we examine cultural variations in the *likelihood* of seeking support (e.g., whether or how frequently support is sought). Second, theoretical analyses of coping and social support (e.g., Thoits, 1986) frequently distinguish between two types of support that may be sought: *instrumental support* (advice, information, and tangible aid that help modify the stressful situation) and *emotional support* (comfort, sympathy, and encouragement that assist with managing distressed emotional states). Thus, we consider whether there are cultural variations in the type of support distressed people seek.

These two aspects of the support-seeking process provide a conceptual window through which scholars can view how people from different cultures conceptualize emotions, distress, social support, their relationships with others, and rules and expectations for those relationships (Burleson, 2003). Research on these two aspects of support seeking may also generate insight into how people view communication as a resource for pursuing personal and relational goals. Pragmatically, research on support seeking may yield knowledge that can enhance people's support-seeking skills, as well as assist the design of more effective therapies, interventions, and educational programs.

Dimensions of Cultural Variability Relevant to Support Seeking

People from distinct cultures diverge in the manner in which they deal with emotional experiences and social relationships. These differences have been commonly explained by using dimensions of cultural variability such as *individualism* and *collectivism* (Hofstede, 1980; Triandis, 1988). According to Hofstede (1991), individualism is the broad value tendency of people in a culture to emphasize individual identity and autonomy over group norms and obligations, whereas collectivism refers to the broad value tendency of people in a culture to emphasize group identity and relational harmony over individual wants and desires. Theorists claim that these two cultural orientations can have important consequences for how people see themselves (i.e., their

self-concepts), especially the self in relation to others (Markus & Kitayama, 1991). For example, some research suggests that, on average, people from individualist cultures see themselves as more unique, independent, and separate than people from collectivist cultures (Singelis & Brown, 1995). In contrast, Triandis (1994) suggests that people from collectivist cultures see themselves, on average, as members of an in-group in which their personal goals and identities are closely connected with the goals and identities of other in-group associates such as family members and close friends. Theorists also claim that personal needs may strongly guide behavior in individualist cultures whereas in collectivist cultures norms, obligations, and duties tend to guide social behaviors (Gudykunst & Matsumoto, 1996; Triandis, 1994). Different nations are often characterized as being predominantly individualistic or collectivist. For instance, the dominant culture in the United States (European American) is typically characterized as individualist, whereas many nations in East Asia (e.g., China, Japan, Korea, Thailand) are viewed as collectivist (Hofstede, 1991; M. S. Kim et al., 1996).

Applied to the support-seeking process, these cultural differences in value orientations suggest that there may be cultural differences in whether or how frequently people seek support, as well as in the type of support they seek. For example, are distressed collectivists more likely than distressed individualists to solicit support from network members when attempting to cope with an upsetting or problematic situation? And when in search of support, do collectivists and individualists differ in their preference for emotional versus instrumental support?

Although some have proposed that people in collectivist cultures are more likely than those in individualist cultures to seek support (e.g., Cortina & Wasti, 2005), most theorists propose that individualists are more likely than collectivists to seek support from network members (see review by Feng & Burleson, 2006). Members of collectivist cultures may be hesitant to disturb the harmony of their in-groups by focusing the attention of group members on their distressed emotional states (Gao, 1996), and thus may be less likely to actively seek support. In particular, collectivists may be loath to express their negative emotions to in-group members as doing so could damage their "face" (Ting-Toomey, 2005) by bringing inappropriate attention to the self and presenting the self in a state of disarray (e.g., Y. Kim, Deci, & Zuckerman, 2002). Further, in more collectivist cultures, people may more regularly monitor the welfare of their in-group members and spontaneously provide support, thereby reducing the need for distressed individuals to actively seek support. In contrast, members of individualist cultures may be more focused than collectivists on having their problem and associated emotional upset addressed by those who are potentially capable of providing assistance (Burleson & Mortenson, 2003), and so may be more likely to directly seek support from others. In particular, members of individualist cultures are regularly encouraged to share their feelings with others and to seek others' help in dealing with upset feelings. Thus, they may be particularly inclined to seek emotional support in times of need.

Consistent with this theoretical analysis, most studies (e.g., Shin, 2002; Taylor et al., 2004) have found that members of collectivist cultures are less likely than members of individualist cultures to seek support, especially emotional support, in times of need (see review by Feng & Burleson, 2006). As a group, Asian Americans are

generally regarded as more collectivist, and less individualist, than European Americans. Thus, it is somewhat surprising that Chang (2001) found that samples of Asian Americans and European Americans did not differ in the self-reported tendency to seek social support as a way of coping with distressing events. But Chang did find that Asian Americans were more likely than European Americans to engage in *social withdrawal* when coping with an upset (also see Jung, 1995). Importantly, Chang further found that the use of social withdrawal as a coping strategy was positively associated with depressive symptoms for both Asian Americans and European Americans; the use of social withdrawal also exhibited marginal, negative associations with life satisfaction in both samples.

With regard to the type of support sought, Taylor et al. (2004) found that European Americans were significantly more likely than either Asians or Asian Americans to seek emotional support when stressed; the two cultural groups did not significantly differ in their tendency to seek instrumental support (e.g., advice, information). In a subsequent study, Taylor et al. (2004) found that European Americans were more likely than Asian Americans to seek both emotional and instrumental support (also see Shams, 2001). Ryan and his colleagues (Ryan, La Guardia, Solky-Butzel, Chirkov, & Kim, 2005) found that individualists (European Americans) were significantly more likely to seek emotional support from family and friends than were collectivists (Koreans). Importantly, Ryan et al. also found that the willingness to seek emotional support from friends and family during times of emotional upset was positively (and equivalently) associated with a composite index of well-being for both individualists and collectivists. This latter finding implies that the collectivist tendency to eschew seeking emotional support from intimates may be a noteworthy risk factor for members of these cultures, especially given their pronounced tendency to avoid seeking support from professional helpers such as counselors and therapists (see review by Feng & Burleson, 2006).

Although existing research findings are important, there are several significant limitations in this research, including (a) a tendency to focus almost exclusively on cultural differences and ignore potential cross-cultural similarities in support-seeking behavior, (b) the implicit assumption of intracultural homogeneity in support-seeking behavior (i.e., that everyone within a particular culture behaves in essentially the same way when it comes to support seeking), and (c) a focus on describing rather than explaining cultural differences in support-seeking behavior. In what follows, we detail these limitations and identify how the current research seeks to address them.

Limitations of Previous Research and Focus of the Present Studies

Searching for Similarities as well as Differences: Intercultural Homogeneity and Heterogeneity in the Support-Seeking Process

Previous research clearly suggests reliable cross-cultural differences in support seeking; members of collectivist cultures are less likely than members of individualist cultures to seek support, especially emotional support. However, preoccupation with such results

may yield distorted conclusions about support seeking in both collectivist and individualist cultures. For example, one group of researchers recently concluded that "people from more interdependent cultures may be *unlikely* to respond to stressors by explicitly enlisting the help of their social support networks compared with those from more independent cultures" (Taylor et al., 2004, p. 355, emphasis added). Current findings clearly do not warrant such statements; simply because people from collectivist (interdependent) cultures are *less likely* than those from individualist (independent) cultures to seek social support when coping with stressors does not mean that they are *unlikely* to do so. Unfortunately, it is difficult to determine how different—and how similar—members of different cultures are when it comes to seeking support precisely because little research has been designed to permit an assessment of cross-cultural similarities as well as differences. Moreover, even when research designs have allowed for analyses of similarities as well as differences, researchers usually have not reported such analyses (e.g., Chang, 2001; Taylor et al., 2004).

Although comparing cultural groups generally leads to emphasizing the differences among them (Fiske & Taylor, 2007, p. 259), researchers should not assume that cultural differences in support seeking are large or outweigh similarities. For example, although individualists may be more likely than collectivists to seek support, especially emotional support, and collectivists may be more likely than individualists to cope through avoidance, it is possible that both individualists and collectivists are more likely to cope with troubles by seeking social support (and even emotional support) than they are to engage in social withdrawal. In other words, there may be both cross-cultural differences *and* similarities in support seeking. Thus, the current study was designed to permit the evaluation of both cross-cultural differences and similarities in support seeking. Given existing theory and research findings, we posed the following hypotheses and research questions:

RQ1: Do European Americans and Chinese differ in the extent to which they prefer coping with an upset by seeking support relative to using other (self-reliant) coping strategies (problem management, emotion management, avoidance)?

H1: European Americans are more likely than Chinese to view seeking social support as an appropriate means of coping with upsetting situations.

H2: European Americans are more likely than Chinese to view seeking emotional support as an appropriate means of coping with upsetting situations.

RQ2: Do European Americans and Chinese differ in the extent to which they prefer coping with an upset by seeking emotional support *versus* instrumental support?

Intracultural Heterogeneity in the Support-Seeking Process: The Role of Sex

Few studies exploring cultural variations in support-seeking behavior have also examined the effects of factors such as sex, social class, and personality, all of which

might produce intracultural heterogeneity in support seeking (for an exception see Ryan et al., 2005). However, growing research suggests that there may be appreciable intracultural heterogeneity in support seeking. For example, nurturance, care, and supportiveness are highly gendered activities in many (and probably most) cultures (Wood & Eagly, 2002), so there is good reason to believe that women should generally have greater access to social support than do men and, further, should be more likely to actively seek support when encountering problems or an upset.

In accord with this reasoning, numerous studies have found that women seek support more often than do men (e.g., Felsten, 1998). Other studies have found that women are more likely than men to seek emotional support when coping with stress (e.g., Day & Livingstone, 2003). Moreover, there is some evidence suggesting that these sex differences may be prevalent in collectivist as well as individualist cultures (Ryan et al., 2005). However, gender is a cultural construction (Waldron & Di Mare, 1998), so it is possible that culture may moderate sex differences in support seeking (Wood & Eagly, 2002). Thus, in the present studies, we posed the following hypotheses and questions:

H3: Women are more likely than men to view seeking social support as appropriate when coping with upsetting situations.

H4: Women are more likely than men to view seeking emotional support as appropriate when coping with an upset.

RQ3: Do women and men differ in their preferences for coping with an upset by seeking emotional support *versus* instrumental support?

RQ4: Does culture moderate sex differences in the perceived appropriateness of seeking (a) social support, (b) emotional support, and (c) instrumental support when dealing with upsetting situations?

We also sought to evaluate the extent to which similarities as well as differences characterize how men and women use social support when coping. Thus, we asked:

RQ5: Do men and women differ in the extent to which they prefer coping with an upset by seeking support relative to using other coping strategies (problem management, emotion management, avoidance)?

Toward Explanations of Cultural and Sex Differences in Support Seeking

Thus far, most research examining both cultural variations and sex differences in support seeking has been directed at describing differences rather than explaining them. This is understandable, perhaps, given the comparatively youthful character of this research area. However, the accumulated database is now sufficiently large to permit more theoretically motivated research efforts focused on *explaining* similarities and differences in support seeking across cultures and the sexes. In particular, there is a need for research that assesses the extent to which particular socio-psychological factors are capable of explaining (i.e., mediating) the effects of culture

and sex on support seeking; as M. S. Kim (2005) indicates, this is the only way in which research can explain cultural-level differences in communicative behaviors.

Numerous factors may mediate the effect of sex and nationality on support seeking, including relationship concerns (Taylor et al., 2004), face concerns (Ting-Toomey, 2005), cultural identity salience (Ting-Toomey et al., 2000), and expressive-instrumental orientation (Reevy & Maslach, 2001), among others. We chose to examine the potential mediating effects of *self-construal*, which can be understood as an individual's mental representation of himself or herself, especially the ways in which the self is viewed as connected to and distinct from others (Markus & Kitayama, 1991). There are several reasons for our focus on self-construal as a potential mediator.

First, theoretical work by Cross and Madson (1997b) suggests the exciting possibility of developing an integrated analysis of sex and cultural differences around the construct of self-construal. These writers maintain that the "collectivist" and "feminine" can both be understood as manifestations of an interdependent self-construal (seeing the self as grounded in one's relationships and group memberships) whereas the "individualist" and "masculine" can both be understood as a manifestation of an independent self-construal (seeing the self as grounded in one's unique abilities or attributes).[1] Thus, self-construal may provide a parsimonious treatment of both sex and cultural differences in communication behaviors. Second, self-construal has been found to mediate the effects of national culture on several important communication variables, including communication styles (Gudykunst et al., 1996), receptiveness to persuasive appeals (Wang, Bristol, Mowen, & Chakraborty, 2000), conversational constraint preferences (M. S. Kim et al., 1996), and conflict management orientations (Ting-Toomey, Oetzel, & Yee-Jung, 2001). More to the point of the current study, self-construal has been used to unpack cultural differences in how people provide social support to others including support goals, comforting messages, and supportive behaviors (Burleson & Mortenson, 2003; Mortenson, 2005; Mortenson, Liu, Burleson, & Liu, 2006). These findings suggest that self-construal may also mediate cultural (and, perhaps, sex) differences in support seeking. Third, self-construal has been found associated with other potential mediators of sex and cultural differences in communication, such as face concerns (Oetzel et al., 2001) and expressive-instrumental orientation (Cross & Gore, 2004). These findings suggest the centrality of self-construal as a mediator of sex and cultural differences in communication; as M. S. Kim (2005) concludes, "Self-construals appear well suited to account for both the between- and within-culture variation in the expression of communicative behavior" (p. 107).

In sum, it appears that individual differences in self-construal will mediate both cultural and sex differences in support seeking. Thus, we posed the following research questions:

RQ6: Do individual differences in self-construal mediate cultural differences in (a) the perceived appropriateness of seeking support as a means of coping with stress, and (b) the perceived appropriateness of seeking emotional support as a means of coping with stress?

RQ7: Do individual differences in self-construal mediate sex differences in (a) the perceived appropriateness of seeking support as a means of coping with stress, and (b) the perceived appropriateness of seeking emotional support as a means of coping with stress?

RQ8: Does culture moderate the mediating effect of self-construal with respect to sex differences in support seeking?

We conducted two studies to evaluate these hypotheses and research questions. Study 1 compared a sample of European Americans with a sample of sojourning Chinese who, at the time of the study, resided in the United States. Study 2 sought to extend the results of Study 1 by comparing a sample of European Americans with a sample of Chinese who, at the time of the study, resided in China.

Study 1

Method

Participants

Participants were 203 college students drawn from European American and sojourning Chinese[2] students attending a large Midwestern university. European American participants (39 males, 59 females) ranged in age from 19 to 36 and averaged 23 years old. The amount of time spent in the U.S. by Chinese participants (44 males, 61 females) ranged from 19 to 24 months and averaged 22 months. Chinese participants ranged in age from 19 to 40 and averaged 26 years old.

Procedure

European American participants attended one of four out-of-class data collection sessions. Chinese participants were recruited via posters and announcements and attended one of two data collection sessions. Chinese participants received a monetary payment after completing their questionnaires; European Americans did not. Two versions of all materials and measures were employed in this study, with the version completed by European Americans written in standard American English and the version completed by Chinese participants written in Chinese. Linguistic equivalency was obtained via back-translation technique. Bilingual Chinese graduate students with professional experience translating English texts were employed as translators.

Instrumentation

Support-seeking and coping behaviors. The perceived appropriateness of using various means to cope with stressful events, including the seeking of social support, was assessed with items adapted from Endler and Parker's (1990) Multidimensional Coping Inventory (MCI) and Folkman and Lazarus' (1988) Ways of Coping Questionnaire (WCQ). From the MCI, 11 items were taken to assess the perceived appropriateness of coping with distress through problem management, emotion management (specifically, self-blame), and avoidance strategies; these are all

individual (in contrast to social) means of coping. An additional five items were taken from the WCQ to assess the perceived appropriateness of seeking social support as a coping strategy. All items asked participants to indicate how appropriate it would be to respond to an upsetting situation by engaging in a specified action (e.g., "When upset, I think it is appropriate to outline my priorities"; "When upset, I think it is appropriate to daydream about a better time or place"); responses were on 7-point Likert scales (1 = *strongly disagree* to 7 = *strongly agree*). Similar self-report approaches to the assessment of coping strategies and support-seeking behavior have been successfully employed in numerous studies (e.g., Chang, 2001; Taylor et al., 2004). The items for each construct were found to be unidimensional and tests utilizing the *e*-coefficient (Van de Vijver & Leung, 1997) found that they were highly similar for both European Americans and Chinese (see Table 1). Internal consistencies for the four coping measures are also reported in Table 1. Although the reliability for the three-item emotion management scale was low[3], overall these reliabilities were deemed acceptable given the small number of items for each scale.

The five items from the WCQ used to assess seeking social support consisted of three items that reflected the seeking of instrumental support ("talking to someone to find out more about the situation," "talking to someone who can do something concrete about the situation," "asking advice from a relative or friend I respect") and two items that reflected seeking emotional support ("accepting sympathy or understanding from someone," "talking to someone about how I feel"). These items were used to create scales assessing the seeking of instrumental and emotional support; the item structures for these two measures were highly similar for the American and Chinese participants (see the *e*-coefficients in Table 1). The internal consistencies for these two measures, albeit low (see Table 1), were deemed minimally acceptable given the small number of items for each scale.

Table 1 Equivalence (e) Coefficients and Reliability (Alpha) Coefficients for Measures in Study 1 and Study 2.

		Study 1		Study 2	
Construct Assessed	# of Items	*e* Coefficient	α Coefficient	*e* Coefficient	α Coefficient
Avoidance	3	.989	.78	.992	.76
Emotion Management	3	.974	.62	.999	.73
Problem Management	5	.985	.75	.997	.87
Seeking Social Support	5	.987	.74	.982	.85
Seeking Instrumental Support	3	.993	.61	.990	.78
Seeking Emotional Support	2	.999	.57	.973	.68
Independent Self-Construal	7	.986	.77	.987	.87
Interdependent Self-Construal	7	.964	.81	.988	.82

Note. In Study 1, $N = 203$; in Study 2, $N = 799$. *E*-coefficients indicate the degree of similarity of item structures for Americans and Chinese, with coefficients $> .95$ indicating high similarity.

Table 2 Items Used to Assess Self-Construals.

Items for Independent Self-Construal
I prefer to be self reliant rather than dependent on others
I don't like depending on others
I take responsibility for my own actions
It is important for me to act as an independent person
I act as a unique person, separate from others
I enjoy being unique and different from others
I enjoy being admired for my unique qualities
Items for Interdependent Self-Construal
My relationships with my friends and family are more important than my personal accomplishments
My happiness depends on the happiness of my friends and family
I often consider how I can be helpful to specific others among my friends and family
I am careful to maintain harmony among my friends and family
I would sacrifice my self-interests for the benefit of my family and friends
I should take into consideration my parents' advice when making educational and career plans
It is important to consult close friends and get their ideas before making decisions

Note. Items are adapted from Leung and Kim (1997).

Self-construal. There is currently considerable controversy regarding the measurement of the self-construal construct (Bresnahan et al., 2005; Gudykunst & Lee, 2003; M. S. Kim & Raja, 2003; Levine et al., 2003). Although many issues regarding the measurement of self-construal remain debatable, there appears to be widespread agreement that the measurement of this construct needs to be improved. In particular, Levine et al. observe that the most popular measures of self-construal are "radically multidimensional" (p. 247), with most scales containing items that tap "a variety of constructs besides self-concept." In an effort to improve the assessment of self-construal, we identified items from one popular measure of this construct (Leung & Kim, 1997) that appeared to (a) clearly focus on the self-concept (rather than conformity, sensitivity to face concerns, communication apprehension, etc.), and (b) clearly reflect a conception of the self as independent from, or interdependent with, others. Specifically, we identified seven items reflecting an interdependent self-construal and another seven items reflecting an independent self-construal; these items appear in Table 2. Principal components analysis showed each set of seven items to be unidimensional. The *e*-coefficient was used to compare the factor structures for European Americans and Chinese; these were found to be highly similar for both independent and interdependent self-construals (see Table 1). Further, each set of seven items exhibited good internal consistency (see Table 1).

Results

The Influence of Culture and Sex on Patterns of Coping Behavior

RQ1, H1, H3, RQ4a, and RQ5 were assessed with a $2 \times 2 \times 4$ mixed-model ANOVA with repeated measures on the last factor. The between-groups factors were culture (Chinese vs. American) and participant sex (male vs. female), the within-subjects factor was coping strategy (avoidance, emotion management, problem management,

seeking social support), and the dependent variable was appropriateness of the strategy. Power for tests of the between-groups factors was .19 for small effects ($f = .10$), .85 for medium effects ($f = .25$), and in excess of .99 for large effects ($f = .40$). For tests of the within-groups factor, power was .76 for small effects and in excess of .99 for medium and large effects. For tests of the interactions among the between- and within-groups factors, power was .64 for small effects and in excess of .99 for medium and large effects.

Means and standard deviations for this analysis are displayed in Table 3. The ANOVA detected a main effect for coping strategy, $F\ (3,\ 597) = 204.91$, $p < .001$, $\eta^2 = .51$. Overall, participants viewed emotion management as least appropriate ($M = 3.80$), followed by avoidance ($M = 4.32$), seeking social support ($M = 5.67$), and problem management ($M = 5.75$). Avoidance was rated more favorably than emotion management, $t\ (202) = 5.39$, $p < .001$, $r^2 = .04$, and less favorably than seeking support, $t\ (202) = 11.74$, $p < .001$, $r^2 = .26$; evaluations of seeking support and problem management did not differ, $t\ (202) = 1.11$, *ns*.

The ANOVA detected a significant main effect for culture, $F\,(1, 199) = 4.03$, $p < .05$, $\eta^2 = .02$; overall, Chinese ($M = 4.97$) viewed the coping strategies as more appropriate than did European Americans ($M = 4.77$). The ANOVA also detected a significant interaction between culture and coping strategy, $F\,(3, 597) = 10.39$, $p < .001$, $\eta^2 = .05$. Decomposition of this interaction revealed that Chinese rated emotion management and problem management significantly more favorably than did European Americans (both $ps < .01$, $r^2 = .04$ and .08, respectively), and rated avoidance marginally more favorably than European Americans ($p < .10$, $r^2 = .02$). In contrast, European Americans rated seeking social support more favorably than did Chinese ($p < .001$, $r^2 = .09$). There were some important cross-cultural similarities in the overall pattern of coping preferences. Both European Americans and Chinese preferred the coping strategy of avoidance to emotion management ($ps < .001$). Further, both European Americans and Chinese preferred the strategies of seeking social support and problem management to the strategy of avoidance (all $ps < .001$). However, European

Table 3 Means and Standard Deviations for Rated Appropriateness of Coping Strategies in Study 1.

		Americans			Chinese		
Dependent Variables	*N*	Men 39	Women 59	Combined 98	Men 44	Women 61	Combined 105
Seeking Social Support		5.66 (0.96)	6.12 (0.54)	5.94 (0.77)	5.46 (0.84)	5.41 (0.85)	5.43 (0.84)
Problem Management		5.48 (0.87)	5.54 (0.93)	5.51 (0.90)	6.14 (0.60)	5.85 (0.68)	5.97 (0.66)
Avoidance		4.12 (1.59)	4.15 (1.46)	4.13 (1.51)	4.23 (1.66)	4.69 (1.30)	4.50 (1.47)
Emotion Management		3.50 (1.06)	3.61 (1.02)	3.56 (1.03)	3.95 (1.23)	4.05 (1.23)	4.01 (1.22)

Note. Numbers in parentheses are standard deviations.

Americans preferred the strategy of seeking support to the strategy of problem management ($p < .001$), whereas Chinese preferred problem management to support seeking ($p < .001$). Thus, in answer to RQ1, European Americans and Chinese were largely similar in preferences for coping strategies, with differences existing within larger similarities. However, consistent with H1, European Americans viewed support seeking more favorably than Chinese.

The main effect for participant sex was not significant, $F(1, 199) = 1.22$, $p > .25$, nor was the interaction between participant sex and type of coping strategy, $F(3, 597) = 1.37$, $p > .25$, or the interaction between sex and culture, $F(1, 199) = 0.32$, $p > .50$. However, the three-way interaction among sex, culture, and coping strategy approached significance, $F(3, 597) = 2.25$, $p < .08$, $\eta^2 = .01$. Exploration of this marginally significant interaction indicated that the only significant sex difference among Chinese was that men preferred problem management more than did women ($p < .05$, $r^2 = .05$; see Table 3). Among European Americans, the only significant sex difference was that women preferred the strategy of seeking support more than did men ($p < .01$, $r^2 = .09$), with this result providing qualified support for H3, as well as indicating in response to RQ4a that culture does moderate sex differences in the perceived appropriateness of seeking social support. Moreover, in answer to RQ5, men and women exhibited largely similar patterns within each cultural group with respect to preferences for coping strategies.

The Influence of Culture and Sex on Seeking Emotional and Instrumental Support

H2, H4, RQ2, RQ3, RQ4b, and RQ4c were assessed with a $2 \times 2 \times 2$ mixed-model ANOVA. The between-groups factors were culture (Chinese vs. American) and participant sex (male vs. female), the within-subjects factor was type of support sought (emotional vs. instrumental), and the dependent variable was perceived appropriateness of seeking support.

Means and standard deviations for this analysis are displayed in Table 4. There was a significant main effect for type of support, $F(1, 199) = 64.22$, $p < .001$, $\eta^2 = .24$; overall, participants indicated a greater likelihood of seeking instrumental support ($M = 5.87$) than emotional support ($M = 5.36$). This main effect was qualified by 3 two-way interactions.

First, there was a significant culture $\times$ support type interaction, $F(1, 199) = 8.86$, $p < .01$, $\eta^2 = .04$. Decomposition of this interaction indicated that, in support of H2, European Americans ($M = 5.77$) were more likely than Chinese ($M = 5.02$) to seek emotional support, $t(201) = 5.20$, $p < .001$, $r^2 = .12$. European Americans ($M = 6.05$) were also more likely than Chinese ($M = 5.70$) to seek instrumental support, $t(201) = 2.95$, $p < .005$, $r^2 = .04$, but the degree of difference due to culture was smaller for seeking instrumental than emotional support. Importantly, however, both European Americans and Chinese indicated they were significantly more likely to seek instrumental support than emotional support; for European Americans, $t(97) = 3.97$, $p < .001$, $r^2 = .03$; and for Chinese, $t(104) = 6.65$, $p < .001$, $r^2 = .11$. Thus, in answer to RQ2, both collectivists and individualists preferred seeking

Table 4 Means and Standard Deviations for Rated Appropriateness of Seeking Emotional Support and Instrumental Support as a Means of Coping with Upsetting Situations in Study 1.

		Americans			Chinese		
Dependent Variables	*N*	Men 39	Women 59	Combined 98	Men 44	Women 61	Combined 105
Seeking Emotional Support		5.35 (1.09)	6.05 (0.64)	5.77 (0.91)	4.99 (1.12)	5.04 (1.14)	5.02 (1.13)
Seeking Instrumental Support		5.87 (0.98)	6.16 (0.60)	6.05 (0.78)	5.77 (0.81)	5.65 (0.93)	5.70 (0.88)

Note. Numbers in parentheses are standard deviations.

instrumental to emotional support, though this preference was somewhat stronger among Chinese than European Americans.

Second, there was a significant sex × support type interaction, $F\ (1, 199) = 5.37$, $p < .05$, $\eta^2 = .03$. Decomposition of this interaction indicated that, in support of H4, women ($M = 5.54$) were more likely than men ($M = 5.16$) to endorse seeking emotional support, $t\ (201) = 2.47$, $p < .02$, $r^2 = .03$. However, men ($M = 5.82$) and women ($M = 5.90$) did not differ with respect to endorsing instrumental support, $t\ (201) = 0.69$, *ns*. Regarding RQ3, both men and women indicated a greater likelihood of seeking instrumental than emotional support, though this preference was somewhat stronger among men, $t\ (82) = 7.22$, $p < .001$, $r^2 = .10$, than women, $t\ (119) = 4.20$, $p < .001$, $r^2 = 04$.

Third, there was a significant interaction between culture and sex, $F\ (1, 199) = 5.32$, $p < .03$, $\eta^2 = .03$. Decomposition of this interaction indicated that American women ($M = 6.11$) were more likely than American men ($M = 5.61$) to endorse seeking support, $t\ (96) = 4.03$, $p < .001$, $r^2 = .09$. However, Chinese women ($M = 5.38$) and men ($M = 5.35$) did not differ in their endorsement of seeking support, $t\ (103) = 0.23$. Thus, in answer to RQ4b and RQ4c, the magnitude of the sex difference in seeking support was larger among European Americans than among Chinese. Finally, the three-way interaction among culture, sex, and type of support sought was not significant, $F\ (1, 199) = 0.88$.

Mediating Effects of Self-Construals

RQ6, RQ7, and RQ8 all concerned whether individual differences in self-construal mediated cultural variations and sex differences in the likelihood of seeking (a) social support and (b) emotional support as a means of coping with stress. To assess these mediating models, three conditions must be met (Baron & Kenny, 1986): (a) the independent variables (i.e., culture, sex) must be associated with the dependent variables (seeking social support; seeking emotional support), (b) the independent

variables must be associated with the mediating variables (i.e., independent and interdependent self-construals), and (c) the mediating variables must be associated with the dependent variables. Correlational analyses were conducted to assess these assumptions (Table 5). The first two assumptions were largely met; the independent variables were associated with the potential mediators and dependent variables (at least marginally). However, the potential mediators were unrelated to the dependent variables, precluding formal tests of mediation. Thus, in answer to RQ6, RQ7, and RQ8, Study 1 detected no evidence that individual differences in independent and interdependent self-construals mediated cultural variations and sex differences in support seeking.[4]

Brief Discussion

As predicted, Study 1 found that European Americans were more likely than Chinese to seek social support, especially emotional support, as a means of coping with upsetting situations. American women viewed seeking social and emotional support as more appropriate than did American men; Chinese men and women did not differ in their judgments of the appropriateness of seeking support. Importantly, these theoretically noteworthy cultural and sex differences were rather small and existed within larger patterns of similarity with regard to coping orientations. For example, both European Americans and Chinese viewed seeking support as more appropriate than avoidance or emotion management. Surprisingly, the cultural and sex differences in support seeking detected in Study 1 were not mediated by self-construals; both independent and interdependent self-construals were unrelated to the support-seeking variables. Moreover, the observed patterns of self-construals were only partially consistent with the patterns predicted by theories of cultural values and

Table 5 Intercorrelations among Selected Variables in Study 1 and Study 2.

Variables	(1)	(2)	(3)	(4)	(5)	(6)
(1) Culture	——	−.01	−.09*	.01	−.29***	−.37***
(2) Sex	−.02	——	.10**	.09**	.23***	.18***
(3) Independent Self-Construal	−.17*	−.14*	——	.54***	.42***	.34***
(4) Interdependent Self-Construal	.24**	.05	−.04	——	.40***	.34***
(5) Appropriateness of Seeking Social Support	−.30**	.12+	.08	.08	——	.73***
(6) Appropriateness of Seeking Emotional Support	−.34**	.17*	.07	.03	.58***	——

Note. Coefficients below the diagonal are from Study 1; coefficients above the diagonal are from Study 2. Culture was coded Americans = 1, Chinese = 2. Sex was coded men = 1, women = 2. For Study 1, $N = 203$; for Study 2, $N = 799$. $+p < .10$, $^{*}p < .05$, $^{**}p < .01$, $^{***}p < .001$.

sex; these results raise questions about the adequacy of self-construal measurement, theory, or both.

One limitation of Study 1 was the rather small samples employed, resulting in low power to detect small effect sizes, a particular problem in studies of cultural and sex differences. A second problem involved the use of a sample of sojourning Chinese students to represent members of a putatively collectivist culture composed of largely interdependent selves. Students who travel to a distant, dissimilar culture in pursuit of higher education obviously differ from the vast majority of their fellow countrymen in several respects that may be relevant to the current study. For example, sojourning students may be more individualist and independent than nonsojourners. Further, although the sojourning Chinese participants in Study 1 had been in the United States for a fairly short period at the time of data collection (from 19 to 24 months), it is possible that immersion in a highly individualist culture may have led these participants to develop a more individualist, independent orientation. Thus, prior to providing substantive interpretations for the results of Study 1, we report Study 2, which was undertaken in an effort to extend the results of Study 1 with substantially larger samples, including a nonsojourning sample of Chinese.

Study 2

The hypotheses, instrumentation, and procedures for Study 2 were largely the same as those for Study 1, with one exception: For our sample of members of a collectivist culture, we collected data from native Chinese participants who resided in China.

Method

Participants

Participants included 309 European Americans (114 men, 195 women) and 490 Chinese (187 men, 303 women). European Americans ranged in age from 18 to 26 years and were U.S. citizens by birth. Chinese participants were attending one of two major universities in northern China; both of these schools are among the top-tier universities in China and enroll students from all major cities and provinces of the country. Chinese participants ranged in age from 19 to 24 years.

Procedures

European Americans and Chinese from one of the universities completed an online version of the study questionnaire; participants from the second Chinese university completed a paper version of the questionnaire.[5] The paper questionnaire completed by the second set of Chinese participants was identical to the online version; participants responded to all questionnaire items on Scantron forms.

Instrumentation

The instruments used in Study 2 were identical to those employed in Study 1 with one exception: 10-point Likert scales were used as a response format for the questionnaires in Study 2 rather than the 7-point scales used in Study 1. Descriptions

of the instruments are provided in our report of Study 1. Assessments of item structure equivalencies with the *e*-coefficient indicated that the unidimensional structures for each construct were highly similar for the American and Chinese participants (see Table 1). Reliabilities for the measures employed in Study 2, as assessed by Cronbach's alpha, were generally good and are also reported in Table 1.

Results

The Influence of Culture and Sex on Patterns of Coping Behavior

RQ1, H1, H3, RQ4a, and RQ5 were assessed initially with a $2 \times 2 \times 4$ mixed-model ANOVA with repeated measures on the last factor. The between-groups factors were culture (Chinese vs. American) and participant sex (male vs. female), the within-subjects factor was coping strategy (avoidance, emotion management, problem management, seeking social support), and the dependent variable was the rated appropriateness of the strategy. Power for tests of the between-groups factors was .97 for small effects ($f = .10$), and in excess of .99 for medium effects ($f = .25$) and large effects ($f = .40$). For tests of the within-groups factor, power was in excess of .99 for small, medium, and large effects. For tests of the interactions among the between- and within-groups factors, power was in excess of .99 for small, medium, and large effects.

Means and standard deviations for this analysis are displayed in Table 6. The ANOVA detected a main effect for coping strategy, $F\ (3,\ 2385) = 433.05$, $p < .001$, $\eta^2 = .35$. Replicating the results of Study 1, participants viewed emotion management as the least appropriate ($M = 5.20$), followed by avoidance ($M = 5.64$), seeking social support ($M = 7.48$), and problem management ($M = 7.73$). Avoidance was rated more favorably than emotion management, $t\ (798) = 5.25$, $p < .001$, $r^2 = .01$, and less favorably than seeking support, $t\ (798) = 19.06$, $p < .001$, $r^2 = .18$; seeking support was rated less favorably than problem management, $t\ (798) = 4.66$, $p < .001$, $r^2 = .01$.

The effect for coping strategy was qualified by a significant two-way interaction between culture and coping strategy, $F\ (3,\ 2385) = 39.44$, $p < .001$, $\eta^2 = .05$.

Table 6 Means and Standard Deviations for Rated Appropriateness of Coping Strategies in Study 2.

		Americans			Chinese		
Dependent Variables	*N*	Men 114	Women 195	Combined 309	Men 187	Women 303	Combined 490
Seeking Social Support		7.19 (2.05)	8.64 (1.35)	8.10 (1.78)	6.81 (1.56)	7.24 (1.61)	7.08 (1.60)
Problem Management		7.30 (1.88)	8.34 (1.40)	7.96 (1.67)	7.34 (1.57)	7.75 (1.80)	7.59 (1.73)
Avoidance		5.32 (2.00)	5.30 (2.22)	5.31 (2.14)	6.19 (2.07)	5.63 (2.23)	5.85 (2.18)
Emotion Management		4.86 (1.86)	4.53 (2.19)	4.65 (2.08)	5.32 (1.84)	5.69 (1.98)	5.55 (1.94)

Note. Numbers in parentheses are standard deviations.

Decomposition of this interaction revealed that Chinese rated emotion management and avoidance more favorably than did European Americans (both $ps < .001$, $r^2 = .05$ and .02, respectively), whereas European Americans rated problem management and seeking social support more favorably than did Chinese (both $ps < .005$, $r^2 = .01$ and .08, respectively). Just as important as these between-group differences, there were important cross-cultural similarities in the overall pattern of coping preferences (see Table 6). Both European Americans and Chinese preferred avoidance to emotion management (both $ps < .005$), and further preferred both social support and problem management to avoidance (all $ps < .001$). However, European Americans preferred seeking social support to problem management ($p < .05$), whereas Chinese preferred problem management to seeking social support ($p < .001$). Thus, in answer to RQ1, European Americans and Chinese had largely similar preferences for coping strategies, with differences existing within a larger pattern of similarity. However, in confirmation of H1, European Americans viewed the strategy of seeking social support as more appropriate than did Chinese.

The ANOVA also detected several effects involving sex. There was a significant main effect for sex, $F\ (1, 795) = 15.40$, $p < .001$, $\eta^2 = .02$; a significant two-way interaction between sex and culture, $F\ (1, 795) = 4.28$, $p < .05$, $\eta^2 = .01$; a significant two-way interaction between sex and coping strategy, $F\ (3, 2385) = 21.60$, $p < .001$, $\eta^2 = .03$; and a significant three-way interaction among sex, culture, and coping strategy, $F\ (3, 2385) = 8.96$, $p < .001$, $\eta^2 = .01$.

Decompositions of these interactions indicated that Chinese men and women differed in their preferences for coping strategies by a comparatively constant amount (roughly, four tenths of a scale point), with Chinese women preferring emotion management, problem management, and seeking support more than Chinese men, whereas Chinese men preferred avoidance more than Chinese women (all $ps < .05$, $r^2 = .01$, .02, .02, and .02, respectively). Chinese men and women also exhibited some important similarities in their preferences for coping strategies, with both sexes rating seeking support as preferable to avoidance and emotion management, and problem management as preferable to seeking support.

A rather different pattern of sex differences was evident for European Americans. Although American men and women did not differ in their evaluation of emotion management and avoidance, American women endorsed both problem management and seeking support more strongly than did American men (both $ps < .001$, $r^2 = .09$ and .15, respectively; see Table 6). American men and women also exhibited some important similarities in preferences for coping strategies, with both rating avoidance as preferable to emotion management, and both problem management and seeking support as preferable to avoidance (all $ps < .02$). However, American women preferred seeking support to problem management ($p < .001$, $r^2 = .01$), whereas American men did not.

In both cultures, then, women preferred seeking support as a coping strategy more than did men, confirming H3. However, in answer to RQ4a, culture moderated sex differences in the perceived appropriateness of seeking support, with these differences being larger among European Americans than Chinese. In answer to RQ5, American

women preferred seeking support to all other coping strategies, whereas American men did not differ in their preference with regard to support seeking and problem management. Chinese men and women both preferred problem management to support seeking, though Chinese women expressed a stronger preference for support seeking than did Chinese men. In brief, men and women exhibited some differences in preferences for coping strategies, but the pattern of sex differences in these preferences varied as a function of culture.

The Influence of Culture and Sex on Seeking Emotional and Instrumental Support

H2, H4, RQ2, RQ3, RQ4b, and RQ4c were assessed with a $2 \times 2 \times 2$ mixed-model ANOVA. The between-groups factors were culture (Chinese vs. American) and participant sex (male vs. female), the within-subjects factor was type of support sought (emotional vs. instrumental), and the dependent variable was perceived appropriateness of seeking support.

Means and standard deviations for this analysis are displayed in Table 7. A significant main effect for culture reiterated the previously reported finding that European Americans were more likely to seek support ($M = 8.10$) than were Chinese ($M = 7.08$), $F\,(1, 795) = 62.69$, $p < .001$, $\eta^2 = .07$. There was also a significant main effect for type of support, $F\,(1, 795) = 69.54$, $p < .001$, $\eta^2 = .08$; overall, participants indicated a greater likelihood of seeking instrumental support (M = 7.70) than emotional support (M = 7.18). These main effects were qualified by the two-way interaction between culture and support type, $F\,(1, 795) = 46.69$, $p < .001$, $\eta^2 = .06$. Decomposition of this interaction indicated that, in support of H2, European Americans ($M = 8.08$) were more likely than Chinese ($M = 6.61$) to seek emotional support $t\,(797) = 11.06$, $p < .001$, $r^2 = 14$. European Americans ($M = 8.14$) were also more likely than Chinese ($M = 7.41$) to seek instrumental support, $t\,(797) = 5.68$, $p < .001$, $r^2 = .04$, but the degree of difference due to culture was smaller for seeking instrumental than emotional support. Chinese indicated they were significantly more likely to seek instrumental support than emotional support, $t\,(489) = 11.59$, $p < .001$,

Table 7 Means and Standard Deviations for Rated Appropriateness of Seeking Emotional Support and Instrumental Support as a Means of Coping with Upsetting Situations in Study 2.

		Americans			Chinese		
Dependent Variables	*N*	Men 114	Women 195	Combined 309	Men 187	Women 303	Combined 490
Seeking Emotional Support		7.12 (2.07)	8.64 (1.40)	8.08 (1.83)	6.51 (1.75)	6.68 (1.87)	6.61 (1.83)
Seeking Instrumental Support		7.27 (2.08)	8.65 (1.40)	8.14 (1.81)	7.06 (1.74)	7.64 (1.66)	7.41 (1.71)

Note. Numbers in parentheses are standard deviations.

$r^2 = .05$. However, this difference was not significant for European Americans, t $(308) = 1.06$, $p > .25$. Thus, in answer to RQ2, collectivists preferred seeking instrumental support over seeking emotional support whereas individualists did not differ significantly in their preferences for seeking instrumental and emotional support.

The ANOVA detected several effects involving sex, including a significant main effect for sex, $F\,(1, 795) = 58.01$, $p < .001$, $\eta^2 = .07$, a significant two-way interaction between sex and culture, $F\,(1, 795) = 20.03$, $p < .001$, $\eta^2 = .03$, and a significant three-way interaction among sex, culture, and support type, $F\,(1, 795) = 7.77$, $p < .005$, $\eta^2 = .01$; notably, the two-way interaction between sex and support type was *not* significant, $F\,(1, 795) = 1.82$, $p > .15$. Decomposition of the three-way interaction indicated that American women ($M = 8.64$) were more likely than American men ($M = 7.12$) to endorse seeking emotional support, $t\,(307) = 7.70$, $p < .001$, $r^2 = .16$ (see Table 7). However, Chinese women ($M = 6.68$) and men ($M = 6.51$) did not differ their endorsement of seeking emotional support, $t\,(488) = 1.01$, $p > .30$. These results provide partial support for H4 (which predicted that women would be more likely than men to endorse seeking emotional support), and further indicate, in answer to RQ4b, that culture moderates sex differences in the seeking of emotional support. American women more strongly endorsed seeking instrumental support ($M = 8.65$) than did American men ($M = 7.27$), $t\,(307) = 6.95$, $p < .001$, $r^2 = .14$; and a similar (albeit smaller) sex difference was observed for Chinese women ($M = 7.64$) and men ($M = 7.06$), $t\,(488) = 3.71$, $p < .001$, $r^2 = .03$. Thus, in answer to RQ4c, the sex difference in seeking instrumental support was somewhat larger for European Americans than for Chinese, but was evident in both cultural groups. Finally, in answer to RQ3, American women viewed seeking emotional and instrumental support as equally appropriate, as did American men (albeit to a lesser extent for both forms of support). However, both Chinese men and women viewed seeking instrumental support as preferable to seeking emotional support, with this differential preference stronger for Chinese women, $t\,(302) = 11.01$, $p < .001$, $r^2 = .07$, than for Chinese men, $t\,(186) = 4.91$, $p < .001$, $r^2 = .03$.

Mediating Effects of Self-Construals

RQ6 and RQ7 concerned whether individual differences in self-construal mediated cultural variations and sex differences in preferences for seeking (a) social support and (b) emotional support as a means of coping with stress. Correlational analyses indicated that the assumptions for tests of mediation were mostly met (see Table 5); the independent variables were significantly associated with the dependent variables, the independent variables were associated with the potential mediators in all but one instance (though the associations here were quite small), and the potential mediators were significantly associated with the dependent variables. Bootstrapping procedures (Preacher & Hayes, 2004) were used to assess the extent to which independent and interdependent self-construals simultaneously mediated the effects of (a) culture and (b) sex on preferences for seeking social support and emotional support. Bootstrapping has the advantage of making no assumptions about the shape of the

sampling distribution of the indirect (mediating) effect or its underlying paths. Rather, these distributions are estimated empirically through resampling procedures. Simulation studies (MacKinnon, Lockwood, & Williams, 2004) indicate that bootstrapping procedures generate more accurate Type I error rates and have greater power for detecting indirect effects than alternative procedures.

The results of our bootstrapping tests of the multiple mediator models are summarized in Table 8. The unstandardized regression coefficients reported in this table are based on 1,000 resamples drawn from our sample of 798, with the statistical significance of the reported coefficients determined from confidence intervals generated by the bootstrapping procedure (Preacher & Hayes, 2008). Table 8 also reports standardized estimates for the sizes of the direct and indirect effects using the proportion of the total effect index proposed by MacKinnon and Dwyer (1993).

Regression coefficients in Table 8 indicate that, with regard to RQ6, individual differences in independent self-construal partially mediated the observed cultural difference in the perceived appropriateness of seeking social and emotional support, explaining a modest 7.9% of the cultural difference in seeking social support, and an even more modest 4.1% of the cultural difference in seeking emotional support. With regard to RQ7, results in Table 8 show that individual differences in self-construals partially mediated the observed sex differences in the perceived appropriateness of seeking social and emotional support, with independent and interdependent self-construals each explaining approximately equal amounts of sex differences in seeking social support (11.9% and 9.6%, respectively) and emotional support (11.9% and 11.4%, respectively).

RQ8 asked whether culture moderated the mediating effect of self-construal for sex differences in preferences for seeking social and emotional support (e.g., whether self-construals are a stronger mediator of sex differences in support preferences among European Americans than among Chinese). Although bootstrapping procedures are available for assessing simple (i.e., single mediator) cases of moderated mediation (see Preacher, Rucker, & Hayes, 2007), we were unable to locate procedures for complex cases of moderated mediation where there are multiple mediating variables. Thus, we conducted separate sets of multiple-mediator bootstrap analyses (with 1,000 resamples each) for European Americans ($N = 309$) and Chinese ($N = 489$).

As the coefficients in Table 9 indicate, self-construals did not significantly mediate sex differences in seeking support among Chinese. Indeed, there was no significant sex difference for Chinese in the perceived appropriateness of seeking emotional support ($r = .05$) and only a small sex difference for seeking social support ($r = .13$, $p < .05$). In contrast, there were moderate sex differences for European Americans in the perceived appropriateness of seeking both social support ($r = .39$, $p < .001$) and emotional support ($r = .40$, $p < .001$). Among European Americans, self-construals partially mediated sex differences in the perceived appropriateness of seeking social and emotional support, with independent and interdependent self-construals each explaining approximately equal amounts of sex differences in seeking social support (12.6% and 9.4%, respectively) and emotional support (9.6% and 10.3%,

Table 8 Summary of Bootstrapping Tests of the Mediating Effects of Self-Construal for the Impact of Culture and Sex on Preferences for Seeking Social Support and Seeking Emotional Support.

Variables	Unstandardized Regression Coefficients								
						Indirect Effect Associated with			
Independent/ Dependent	Total Effect	Direct Effect		Overall Indirect Effect		Independent Self-Construal		Interdependent Self-Construal	
		Coeff	%	Coeff	%	Coeff	%	Coeff	%
Culture									
Social Support	−1.021***	−0.946***	92.7%	−0.075	7.3%	−0.081**	7.9%	0.006	0.6%
Emotional Support	−1.471***	−1.416***	96.2%	−0.055	3.7%	−0.061*	4.1%	0.006	0.4%
Sex									
Social Support	0.838***	0.658***	78.5%	0.180**	21.5%	0.100*	11.9%	0.080*	9.6%
Emotional Support	0.707***	0.542***	76.7%	0.165**	23.3%	0.084*	11.9%	0.081*	11.4%

Note. Culture was coded Americans = 1, Chinese = 2. Sex was coded men = 1, women = 2. Percentages (%) refer to percent of the total effect explained by a particular variable or effect. $N = 799$. $^{*}p < .05$, $^{**}p < .01$, $^{***}p < .001$.

Table 9 Summary of Bootstrapping Tests of the Mediating Effects of Self-Construal for Sex Differences in Preferences for Seeking Social Support and Seeking Emotional Support among Americans and Chinese.

Variables	Unstandardized Regression Coefficients								
						Indirect Effect Associated with			
Independent/Culture	Total Effect	Direct Effect		Overall Indirect Effect		Independent Self-Construal		Interdependent Self-Construal	
Social Support		Coeff	%	Coeff	%	Coeff	%	Coeff	%
Americans	1.454***	1.134***	78.0%	0.320*	22.0%	0.183*	12.6%	0.138 +	9.4%
Chinese	0.432*	0.355*	82.1%	0.077	17.9%	0.016	3.7%	0.061	14.2%
Emotional Support									
Americans	1.522***	1.219***	80.1%	0.303*	19.9%	0.146*	9.6%	0.157*	10.3%
Chinese	0.167	0.098	58.7%	0.069	41.3%	0.010	6.2%	0.059	35.1%

Note. Sex was coded men = 1, women = 2. Percentages (%) refer to percent of the total effect explained by a particular variable or effect. $N = 799$. $+p < .10$, $^{*}p < .05$, $^{**}p < .01$, $^{***}p < .001$.

respectively). Thus, in answer to RQ8, culture did moderate the mediating effects of self-construals with respect to sex differences in seeking support.

General Discussion

Our studies examined both similarities and differences in support-seeking behavior associated with participant culture and sex. Previous research detected both cultural variations and sex differences in support seeking as a means of coping, with women and members of individualist cultures indicating a greater likelihood of seeking social and emotional support in times of need than men and members of collectivist cultures. Our two studies largely replicated these findings. However, because the current studies sought to examine similarities as well as differences, they provide a deeper, more textured portrait of how support seeking is influenced by sex and culture.

In both of our studies, we found, as predicted, that members of an individualist culture (European Americans) indicated that seeking social support was a more appropriate means of coping with distress than did members of a collectivist culture (Chinese). Further, European Americans indicated that it was more appropriate to seek both emotional and instrumental support from network members than did Chinese. These results replicate findings recently reported by Taylor et al. (2004). Our findings go further, however, in that we also found in Study 1 that both European Americans and Chinese indicated that seeking instrumental support was a more appropriate strategy for coping with distress than was seeking emotional support; in Study 2, Chinese again indicated a stronger preference for seeking instrumental than emotional support whereas European Americans did not differ in their preference for seeking the two types of support. Thus, the cultural differences we detected in support seeking existed within some larger patterns of cross-cultural similarity.

Much the same was true for cultural differences in preferences for coping behaviors. Although we, like others (Chang, 2001; Taylor et al., 2004), found that individualists more favorably rated seeking support as a coping strategy than did collectivists, and that collectivists more favorably rated emotion management and avoidance than individualists, we also found that both individualists and collectivists evaluated support seeking and problem management more favorably than avoidance and emotion management. Thus, on balance, it appears that intercultural similarities outweigh differences in coping orientations, although some differences do distinguish European Americans and Chinese.

Previous research has found that both collectivists and individualists want to receive emotional and instrumental support (Xu & Burleson, 2001), and both highly value the instrumental and, especially, the emotional support they receive from others (Burleson & Mortenson, 2003). Thus, it appears that cultural differences in coping are not a function of differential evaluations of social support. Rather, cultural differences in the coping may be due to collectivists placing greater value than individualists on the maintenance of in-group harmony, and individualists placing greater value than collectivists on having their personal needs met (Markus &

Kitayama, 1994; Taylor et al., 2004; Triandis, 1994). Alternatively, these cultural differences in coping could arise from collectivists placing a greater value than individualists on maintenance of a positive face (Ting-Toomey, 2005).

Replicating previous research (e.g., Felsten, 1998), we found that women viewed it as more appropriate than men to seek support as a means of coping with troubles. However, these sex differences were more pronounced among European Americans than Chinese; in Study 1 European American women rated seeking both types of support more favorably than did American men, a finding that was replicated in Study 2. In contrast, Chinese men and women did not differ in their endorsement of seeking either emotional or instrumental support in Study 1, and in Study 2 did not differ in their endorsement of seeking emotional support; Chinese women did more strongly endorse seeking instrumental than emotional support in Study 2, but the magnitude of this difference was clearly smaller than that between European American men and women. Overall, these findings suggest that there is something within the individualist (or European American) culture that fosters sex differences in support seeking. As several scholars have suggested (e.g., Fischer & Manstead, 2000), over the course of socialization in American society, women are encouraged to a greater extent than men to express their feelings and seek support when troubled. This sex difference in the socialization of support seeking may be a function of how femininity and care giving are represented and practiced in contemporary American society (Wood & Eagly, 2002). More specifically, Day and Livingstone (2003) found that American women perceived problematic situations as more stressful than American men and this, in turn, mediated sex differences in seeking emotional support. Other studies (e.g., Reevy & Maslach, 2001) have found that psychological sex helps to explain sex differences in seeking emotional support among European Americans; gender-typed men are the least likely to seek emotional support when stressed.

Although there were some noteworthy sex differences in coping and support seeking, these differences were largely overshadowed by cross-sex similarities. Both men and women indicated that they preferred seeking social support to avoidance or emotion management as a coping strategy. And both men and women indicated that they preferred seeking instrumental support to seeking emotional support. These similarities, along with the generally small magnitudes of the statistically significant sex differences, are clearly inconsistent with the claim that men and women constitute different communication cultures (Tannen, 1990). Indeed, such claims appear to be little more than misleading and harmful myths (MacGeorge, Graves, Feng, Gillihan, & Burleson, 2004).

Based on work by Cross and Madson (1997b), we sought to determine whether cultural and sex differences in support seeking might be explained in terms of individual differences in independent and interdependent self-construals. Because recent scholarship (e.g., Levine et al., 2003) has called into question the validity of many popular self-construal measures, we sought to develop cleaner, more focused measures of independent and interdependent self-construals by utilizing coherent subsets of items from one popular self-construal measure (Leung & Kim, 1997). Our

effort to develop an improved measure of self-construals yielded some interesting—and some unexpected—results. The item sets we employed exhibited unidimensionality for each aspect of self-construal, similar patterns of item loadings for both European Americans and Chinese, and good internal consistency in both of our studies. As anticipated, European Americans exhibited a higher independent self-construal than did Chinese in both of our studies. However, Chinese exhibited a higher interdependent self-construal than European Americans in Study 1 but not in Study 2 (see Table 5).[6] With regard to sex differences, Study 1 found, as expected, that men exhibited a higher independent self-construal than did women. However, in Study 2, women exhibited a higher independent self-construal than did men (see Table 5). Study 2 found, as expected, that women exhibited a higher interdependent self-construal than did men. However, Study 1 found no sex differences in interdependent self-construal. In sum, the pattern of cultural and sex differences in self-construals in our two studies were only partially consistent with the predictions made by theories of cultural values and gender-role orientations (Cross & Madson, 1997b; Levine et al., 2003). Further, when present, cultural and sex differences in self-construals were quite small in magnitude, never explaining more than 6% of the culture- and sex-based variance, and more typically explaining only 1% or 2% of this variance.

Given the tangled pattern of cultural and sex differences in self-construals detected by our studies, as well as the small magnitude of these differences, it is not too surprising that self-construals did not emerge as strong, consistent mediators of cultural and sex differences in the perceived appropriateness of seeking social and emotional support. Indeed, the mediating role of self-construal could not be examined in Study 1 since neither dimension of self-construal was related to the dependent variables of interest. In Study 2, however, some theoretically interesting patterns of partial mediation for self-construals were observed. Independent self-construal partially mediated cultural differences in endorsements of both social and emotional support. However, interdependent self-construal had no mediating effect with respect to these cultural differences. In contrast, interdependent self-construal did partially mediate sex differences in endorsements of both social and emotional support, and although independent self-construal also partially mediated these sex differences, it did so in a fashion opposite to that anticipated by theory (because women reported a higher independent self-construal than did men). Moreover, the mediating effects of self-construals for sex differences in support seeking held only for European Americans; sex differences in support seeking were smaller among Chinese than European Americans, leaving less variance to be mediated.

The collection of results for the self-construal measures might be taken as an indication that our measures lack validity (Levine et al., 2003), and this is certainly a possibility that cannot be dismissed out-of-hand. However, the items composing our measures do appear to be face-valid, were internally coherent, and did display some theoretically interesting (if not always consistent) patterns of association. Rather than our *measures* being invalid, it is possible that the *theories* predicting particular patterns of self-construal for different cultures and sexes are invalid, as M. S. Kim and

Raja (2003) suggest in response to Levine et al.'s critique of self-construal measures. Indeed, some theorists suggest that people universally experience the need for interdependence with family and social groups, as well as the need to feel independent and distinct from their cohorts (Kagitcibasi, 1996), and further, while culture influences the expression of such needs, cultural socialization does not produce such needs in and of itself (Brown & Kobayashi, 2002; Kobayashi & Brown, 2003).

Recent cross-cultural research focusing on the provision of social support bolsters such claims. For example, Mortenson et al. (2006) found that independent self-construal predicted providing emotional support among both European Americans and Chinese. Given this, it is interesting to note that within the present study, when the data for European American and Chinese responses were analyzed together, both types of self-construal significantly predicted seeking social support and seeking emotional support. Moreover, there was little difference in the predictive power of either independence or interdependence. As shown in Table 5, both independence and interdependence produced an identical level of association with seeking emotional support ($r = .34$, $p < .001$) and very similar associations for seeking social support (independence, $r = .40$, $p < .001$; interdependence, $r = .42$, $p < .001$). It may be then, that independence and interdependence represent trans-cultural needs that all people possess and that cultural differences in these needs are more relative than absolute. The fact that self-construal measures have predicted a plethora of communication behaviors in over 50 studies (Gudykunst & Lee, 2003) suggests that future studies should compare whether these measures represent cultural differences in socialization or universal dimensions of human need.

Consistent with a more universalist view, growing research suggests that the primacy of an independent self-construal is stable across cultures (Levine et al., 2003; Sedikides, Gaertner, & Toguchi, 2003). Thus, perhaps self-construal is an individual difference that is only minimally related to demographic variables such as sex and nationality. Of course, this viewpoint requires both theoretical and methodological development; self-construal needs to be connected to other individual differences in theoretical webs that permit predictions and not merely *post hoc* interpretations. For example, future work needs to explain why both American and Chinese women, as well as Americans and men, see themselves as more independent than interdependent. It is also possible that self-construal is better conceptualized and measured along more than just two dimensions, as several researchers have recently suggested (Sedikides & Brewer, 2001).

Our findings have some important pragmatic implications. It has been known for some time that members of collectivist cultures are particularly reluctant to seek support from professionals such as counselors, therapists, and even teachers (see review by Feng & Burleson, 2006). The current study, in conjunction with some other recent research (Ryan et al., 2005; Taylor et al., 2004), indicates that the comparative reluctance to seek support by collectivists extends to the network of informal helpers (family, friends) as well. Indeed, our two studies along with other research (Chang, 2001) indicate that collectivists are more likely than individualists to cope with stress

through avoidance and the private management of emotions. This is of particular concern since research suggests that collectivists do benefit from social and emotional support (Ryan et al., 2005) and function less well when relying on coping strategies such as avoidance (Chang, 2001). This pattern of findings suggests that future work should explore the factors that lead collectivists to rely on self-reliant coping strategies when stressed, as well as the factors that lead collectivists to positively evaluate these strategies. Other research might explore how to enhance evaluations of support seeking and promote the use of skilled strategies that minimize the risks, face-threats, and impositions associated with the seeking of support (Goldsmith & Parks, 1990).

Like previous research, our studies focused on the appropriateness of seeking support; much less research has examined the *agents* from whom support is sought and the *strategies* used to seek support. Arguably, the latter two aspects of support seeking are theoretically and practically more important. In particular, given the inherent complexities and potential risks of seeking support, much more research is needed on the strategies used when seeking support, especially the effectiveness of these strategies with respect to various outcomes (Goldsmith & Parks, 1990).

In sum, our two studies demonstrate that there are substantial similarities, as well as differences, in the support-seeking orientations of European Americans and Chinese, and men and women. Further, at least some of the sex differences in support seeking are qualified by culture; sex differences are more pronounced among European Americans than Chinese. These results underscore the need to avoid simplistic claims that unduly emphasize differences among members of different cultures and genders. Obtaining social support from caring others in times of trouble is important to *both* men and women, as well as to members of *both* collectivist and individualist cultures. This paramount finding should remain in focus as future research explores how culture and gender influence other aspects of support seeking and how various sociopsychological factors mediate the influence of culture and sex on support seeking.

Notes

[1] According to Cross and Madson (1997a): "The term *self-construal* refers to both content and structure of self-representations. In the *interdependent* self-construal, representations of others are incorporated into the self; the boundaries between representations of the self and significant others are flexible or permeable. This self-construal includes multiple, specific self-representations (e.g., attributes, traits, skills, or preferences), but these self-representations may often be associated with particular relationships or contexts. Thus, a person may think of himself or herself as 'serious with my parents' and 'lighthearted with my friends.' A person with an *independent* self-construal may be equally sociable or interested in relationships, but the representations of these relationships are separated from representations of the self. A core set of attributes, abilities, skills, attitudes, and preferences describe the self, and a central motivation is to express or assert these attributes and abilities (Markus & Kitayama, 1991)" (p. 53).

[2] Though the majority of Chinese are Han Chinese, there are some 55 other cultural groups in China that are commonly identified as "ethnic groups." These include Mongolians, Uyghurs,

Tibetans, and many others. Because classifications for these ethnic groups were not included in the survey questionnaire, it is likely that these ethnic differences existed (but were not identified) among the Chinese participants in these two studies.

[3] The primary effect of low reliabilities is to increase the likelihood of "false negative" Type II errors (i.e., failing to find hypothesized effects), and not "false positive" Type I errors (i.e., finding spurious effects or concluding an effect is present when it isn't). See DeVellis (2003).

[4] A set of supplemental analyses was conducted using the full set of 30 items from the Leung and Kim (1997) self-construal scale. Neither independence nor interdependence was significantly associated with the relevant dependent variables. Details of these supplemental analyses are available from the second author on request.

[5] Analyses indicated the two Chinese samples did not significantly differ on measures of interest.

[6] Supplemental analyses indicated that in both studies, both Americans and Chinese were more independent than interdependent, whereas theory suggests that Chinese should be more interdependent than independent. Details of these analyses are available from the second author.

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