CULTURE, STRESS, AND COPING
Internally- and Externally-Targeted Control Strategies of European Canadians, East Asian Canadians, and Japanese

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Two studies examined internally and externally targeted control strategies in response to life stressors in European Canadians, East Asian Canadians, and Japanese. In Study 1, European Canadian, East Asian Canadian, and sojourning Japanese university students in Canada recalled a stressful life event and reported their coping strategies. Respondents also reported current and retrospective self-evaluations that allowed assessment of perceived self-changes over time. Study 2 included East Asian Canadian and European Canadian university students in Canada and Japanese university students in Japan. Both studies revealed that several types of internally targeted control strategies were more prevalent among East Asian participants but that a particular type of internally targeted control strategy, self-enhancing interpretive control, was more prevalent among people with Western English-speaking backgrounds.

Keywords: culture; stress; coping; Japanese; North American

Stress and coping research abounds, yet surprisingly little attention has been devoted to cultural influences (see Aldwin, 1994, for a review). Much of the existing work on culture and coping is anecdotal in nature (Henkin, 1985; Lebra, 1984; for exceptions, see Kim, Won, Liu, Liu, & Kitanishi, 1997; McCarty et al., 1999). A reading of Lazarus and Folkman's (1984) widely cited stress and coping framework, however, makes evident the centrality of culture in the stress and coping process. Within this framework, stress is conceived as an interaction between the demands of the environment and the resources of the self, and coping is conceptualized as the management of these interactions between the self and environment. Cross-cultural researchers undoubtedly are aware of culture's influence on each of these major agents in the stress and coping encounter; culture influences the nature of the self (Markus & Kitayama, 1991; Triandis, 1989), the nature of the environment (Kitayama, Matsumoto, Markus, & Norasakkunkit, 1997), and even the perception of the environment (Choi, Nisbett, & Norenzayan, 1999; Masuda & Nisbett, 2001). The current studies examine how culture is related to coping, specifically internally targeted and externally targeted control in response to stressful events.

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JOURNAL OF CROSS-CULTURAL PSYCHOLOGY, Vol. 35 No. 6, November 2004 652-668
DOI: 10.1177/0022022104270109

Our overarching hypothesis is that participants from a number of East Asian backgrounds are more likely than participants from Western English-speaking backgrounds to respond to stressful encounters via internally targeted control attempts, that is, attempts to accommodate the self to the demands of the environment, and that participants from Western English-speaking backgrounds are more likely than those from a number of East Asian backgrounds to cope via externally targeted control strategies, that is, attempts to control or alter the environment. Past research has examined control orientations in the context of coping with changes during the life span (Heckhausen & Schulz, 1995) and coping with other stressful events (Band & Weisz, 1988). However, cultural differences in coping with stressful life events via internally targeted and externally targeted control have attracted little research. Weisz, Rothbaum, and Blackburn's (1984) article argued for Japanese versus American differences in these control orientations but did not focus on the domain of coping with stressful events. Weisz et al. did, however, present a thought-provoking analysis of control in Japanese and North Americans across several important everyday life domains, including child rearing, socialization, religion, philosophy, work, and psychotherapy.

We believe that the conventional terminology for these control orientations is problematic. For historic reasons, externally targeted control has often been labeled *primary control*, and internally targeted control labeled *secondary control*. These terms are problematic because of the implicit assumption that the orientation possibly more common in North America is somehow primary, and the orientation possibly more common in parts of East Asia is somehow secondary (Schulz & Heckhausen, 1999). We have revised the labels to be more descriptive and less value laden. For what has traditionally been labeled primary control, we instead use the term *externally targeted control* (i.e., attempts to control the environment). For what has traditionally been labeled secondary control, we use the term *internally targeted control* (i.e., attempts to control the self). Although the terms sound similar to Rotter's (1990) internal and external locus of control concepts, the constructs are fundamentally different. Whereas Rotter's locus of control dimensions distinguish the perceived origin of control (i.e., the self or outside forces), our terminology identifies the intended target of control.

Several cultural variables may increase the likelihood of internally targeted control and may decrease the likelihood of externally targeted control. First, externally targeted control can disrupt relationships because of the potential for generating reactivity among others who prefer the status quo or who resist attempts to be changed. Thus, people in contexts emphasizing greater in-group harmony (i.e., collectivist cultures) may be less likely to report externally targeted control attempts when coping with stressors. Second, high-power distance cultures, by definition (Hofstede, 1980), cultivate a willingness to accept certain situations, particularly high-power distance situations, and thus, people from these cultures may report fewer attempts to change the situation (i.e., externally targeted control attempts) when coping with stress. Third, Buddhist-influenced beliefs within a culture may increase the tendency toward internally targeted control attempts when coping with stressors. According to Buddhism, suffering is inevitable in the physical world, and the path to freedom from suffering is found through absence of desire, not through direct efforts at symptom reduction or through active efforts to solve one's problems (externally targeted control) in the physical world. Fourth, Taoist-influenced beliefs within a culture may increase the tendency to report internally targeted control; Taoism teaches that one must adapt oneself to move with the rhythms of nature. According to Taoist teaching, water is powerful because it adapts itself to fit its terrain. Thus, Taoism teaches the value of adapting oneself to fit external

circumstances (i.e., internally targeted control). These religious teachings, though disregarded in much of the daily routine of people within most Buddhist-influenced and Taoist-influenced cultures, may nevertheless affect the expectations and self-perceptions of many via conscious or nonconscious assumptions about the utility of the differing types of control.

Thus, our hypothesis is that people from collectivist, high-power distance, Buddhism-influenced, and Taoism-influenced countries are more likely than people from countries characterized by lower levels of these variables to respond to stressful encounters via internally targeted control attempts and are less likely to cope via externally targeted control strategies. These four cultural variables encouraging internally targeted control come together in some East Asian countries. Thus, our study compares East Asian cultures with Western English-speaking cultures, the latter tending to be characterized by lower levels on all four of these variables.

To simplify our terminology, rather than repeatedly referring to collectivist, Taoism-influenced, Buddhism-influenced, and moderate- to high-power distance cultures, we hereafter use the brief and admittedly imprecise label *East Asian*. Also, instead of repeatedly referring to Western English-speaking cultures low on collectivism, power distance, Buddhist influence, and Taoist influence, we use the short term *Western English-speaking*.

Some anecdotal stress and coping-related evidence suggests that there may indeed be East Asian versus Western English-speaking differences in control targets (Heine, Lehman, Markus, & Kitayama, 1999; Kojima, 1984; Lebra, 1984; Lin, 1939). Some recent empirical evidence further supports the hypothesized and anecdotally supported East Asian versus Western English-speaking difference in control targets, though in some of these recent studies, the context studied was relatively low in stress for many participants (Morling, 2000; Morling, Kitayama, & Miyamoto, 2001), and the limited results were not always consistent (Chang, 1996; McCarty et al., 1999; Ohsako, 1994; Radford, Mann, Ohta, & Nakane, 1993; see Yamaguchi, 2001, for a review and a clarification of the subtypes of control).

INTERNALLY AND EXTERNALLY TARGETED CONTROL AS EMOTION-FOCUSED AND PROBLEM-FOCUSED COPING

The construct of internally targeted control, which is particularly well suited to cross-cultural research, both fits well within Lazarus and Folkman's (Lazarus & Folkman, 1984) broadly referenced coping framework and suggests an extension of the framework. In particular, internally targeted control largely subsumes their emotion-focused coping construct. According to Lazarus and Folkman, emotion-focused coping involves attempts to manage emotional reactions to stressful encounters. Thus, emotion-focused coping is a type of control aimed at an internal target. Subtypes of emotion-focused coping, according to Folkman and Lazarus (1988), include self-control, distancing, accepting responsibility, and positive reappraisal, all of which they suggest tend to be aimed at managing one's own emotions. In cultures in which the self is seen as more pliable than the environment or in which changing the environment risks serious relational disharmony, this type of coping may be more prevalent than problem-focused coping.

Cultural considerations reveal, however, that the emotion-focused coping construct does not capture all internally targeted control. Not all internally targeted coping is focused on individualistically defending the emotions of the self. Controlling the self may serve other purposes, such as preserving relational harmony or adapting to the environment. The exact form of coping strategies serving these purposes could vary, so measures of specific types of

internally targeted control that are not necessarily emotion focused are needed. Notably, some Japanese researchers, Ozeki, Haraguchi, and Tsuda (1994), assessed a type of internally targeted control that is not necessarily emotion focused. They developed questionnaire items assessing the coping strategy of waiting. Waiting, which clearly requires controlling one's impulses, fits under the rubric of internally targeted control and may be more common in Japan than in the West (Radford et al., 1993). However, waiting things out is not necessarily emotion focused. Consciously waiting may instead be focused on not creating problems for others or on enabling a clearer assessment of the situation, neither of which are necessarily directly focused on managing one's emotions, but both of which require internal control. Waiting may ultimately serve an externally targeted control purpose (e.g., waiting with an intention to tackle the problem later) or may even be accompanied by indirect externally targeted control (Yamaguchi, 2001), but in the short term, at least, waiting indicates withholding impulses and, in that sense, indicates internally targeted control.

In contrast, externally targeted control in the Lazarus and Folkman model is called problem-focused coping and includes responses such as confrontive coping and planful problem solving. These problem-focused responses express attempts to resolve a problem by acting to alter the external world.

In our research, we anticipated that our East Asian samples would be more likely than the Western English-speaking samples to report the use of internally targeted control strategies, such as self-control, distancing, acceptance of the situation, and waiting things out. We anticipated that Western English speakers would be more likely than our East Asian samples to report externally targeted control strategies, such as confrontation and planful problem solving.

SELF-ENHANCING INTERPRETIVE COPING

One type of internally targeted control, however, may be common among Western English speakers. According to research conducted with Western English speakers, many people who have experienced a traumatic event seem to cope in part by perceiving improvement in the self or the situation over time (Affleck & Tennen, 1996; Lehman et al., 1993; McFarland & Alvaro, 2000; Sittser, 1996).

Research on perceived growth suggests that perceptions of improvement may be, at least in part, illusory and motivated by attempts to see the self in a positive light (McFarland & Alvaro, 2000). Thus, perceived growth may be a form of internally targeted control (coping by controlling one's own beliefs). Weisz et al. (1984) discussed the related but broader construct of interpretive secondary (internally targeted) control, which refers to attempts to understand existing realities in ways that derive a sense of meaning or purpose from one's experiences. We focus on a subtype of interpretive control: self-enhancing interpretive coping. By this, we refer in particular to changing one's beliefs about oneself in positive ways in the context of coping with a stressor (e.g., "I've become a better person in response to this stressor").

It is reasonable to expect that Western English-speaking samples will be more likely than many East Asian samples to exhibit self-enhancing interpretive coping (e.g., "I've become a better person"). This expectation is supported by past research indicating that Western English speakers less frequently self-criticize (Heine & Lehman, 1999), more frequently strive to maintain positive self-regard (Heine & Lehman, 1995, 1999), and more frequently exhibit self-serving attributions than do Japanese individuals (Kashima & Triandis, 1986). These

findings suggest one exception to this pattern of more internally targeted control by the East Asian samples and more externally targeted control by Western English-speaking samples. In particular, self-enhancing interpretive coping (e.g., coping by dwelling on thoughts, such as the following: "I became a better person" or "I grew through the experience") may be particularly evident among Western English speakers.

STUDY 1

Study 1 was a cross-cultural examination of coping via externally and internally targeted control. We anticipated that those from East Asian backgrounds would generally be more likely than European Canadians to cope by using internally targeted control strategies, such as self-control, distancing, acceptance of the situation, and waiting things out. We anticipated that European Canadians would be more likely than East Asians to attempt to modify the environment by means such as planful problem solving and confrontation. We also explored the possibility that European Canadians would more frequently cope via self-enhancement.

METHOD

PARTICIPANTS

Participants were 97 Canadian students from the University of British Columbia and 26 Japanese students from Ritsumeikan University (mean age = 19.6; 20 females and 6 males) visiting the University of British Columbia from Kyoto, Japan. The Canadian group included 22 students of Western European descent (mean age = 21.4 years; 16 females and 6 males), 57 students of East Asian descent (mean age = 19.1 years; 45 females and 12 males), and 18 students from other backgrounds, such as South Asian Canadian and mixed ethnicity. The East Asian Canadian group was comprised mostly of people of Chinese descent and included no people of Japanese descent. Comparisons were made between European Canadians, East Asian Canadians, and Japanese. We assume that continuous dimensions underlie most if not all cultural differences (Tweed, Conway, & Ryder, 1999). In keeping with this assumption, we anticipated that Japanese exchange students, being most strongly influenced by the potent cultural variables potentially increasing predisposition to internally targeted control (i.e., collectivism, power distance, Taoist influence, and Buddhist influence), would most frequently report internally targeted control strategies, that European Canadians would least frequently report such strategies, and that Asian Canadians would tend to fall in the middle. We expected the opposite pattern for externally targeted control.

MATERIALS AND PROCEDURE

Participants were asked to think back over the past 5 years to a very negative, stressful, or traumatic event that happened to them (e.g., the loss of a loved one, being seriously injured, family member experiencing an illness, breaking up with a girlfriend or boyfriend) and then were asked to complete measures of self-enhancing interpretive control, and, finally, a coping checklist.

ETIC-EMIC METHODOLOGY

An etic-emic (Berry, 1969) procedure was followed in developing the coping scale for this study. In etic methodology, a procedure or measure from one culture is applied to another without adjustment. In emic methodology, indigenous procedures or measures are developed for each culture. Both approaches have drawbacks because etic procedures can be culturally insensitive and inappropriate, and fully emic procedures do not allow comparison between cultures. We sought to exploit the advantages of etic and emic procedures by taking an accepted North American coping measure and modifying it to include items especially relevant to Japanese participants. This methodology allows the etic advantage of using the same measure in both cultures, for purposes of comparison, while still increasing the relevance of the procedure to culturally divergent participants.

Ways of Coping Checklist. All participants completed a brief 32-item revised Ways of Coping Checklist (WOCC; Folkman & Lazarus, 1985). The WOCC is one of the most widely used self-reports of coping and is based on the Lazarus and Folkman (1984) framework. The brief version of the WOCC was created by using the top four loading items on each subscale (Folkman, Lazarus, Dunkel-Schetter, DeLongis, & Gruen, 1986). The subscales include confrontive coping (e.g., "stood my ground and fought for what I wanted," "expressed anger to the person who had caused the problem"), distancing (e.g., "went on as if nothing had happened," "didn't let it get to me; refused to think about it too much"), self-control (e.g., "tried to keep my feelings to myself," "tried to keep others from knowing how bad things were"), seeking social support (e.g., "talked with someone to find out more about the situation," "asked a relative or friend I respected for advice"), accepting responsibility (e.g., "criticized or lectured myself," "realized I brought the problem on myself"), escape and avoidance (e.g., "wished the situation would go away or somehow be over with," "hoped a miracle would happen"), planful problem solving ("I knew what had to be done, so I doubled my efforts to make things work," "made a plan of action and followed it"), positive reappraisal (e.g., "changed or grew as a person in a good way," "I came out of the experience better than when I went in"). The number of respondents in this study was insufficient to assess whether the previously reported factor structure generalized to the Japanese participants (a factor analysis was conducted, however, in Study 2).

Japanese coping items. A stress questionnaire developed by Japanese researchers (Ozeki et al., 1994) was reviewed for relevant constructs. Questions related to the strategies of waiting ("waited until I was able to do something about the matter," "I leave things to the passing of time") and accepting the problem ("tried to think of it as not being all that important") were modified or created to match the format of the WOCC and included in the questionnaire.

Self-enhancing interpretive control. In addition to responding to the more direct measure of self-enhancing interpretive coping provided by the WOCC positive reappraisal scale (e.g., "changed or grew as a person"), participants also completed a set of temporal self-evaluation items (McFarland & Alvaro, 2000), which allowed measurement of their perceived personal improvement in several domains (i.e., positive social orientation [e.g., kind, tolerant], wisdom and skills [e.g., knowledgeable, courageous], self-insight and appre-

ciativeness [e.g., insightful about oneself, reflective], honesty and reliability [e.g., honest, reliable], general well-being [e.g., happy about life, healthy], spirituality [e.g., good understanding of spiritual matters], and opportunities in life [e.g., "certain I have a clear direction," "certain I have many opportunities"]). In particular, participants rated their current standing and their standing 5 years ago. Subtracting the latter from the former produced a measure of personal improvement (alpha > .85 for each of the three cultural groups with the overall scale). Past research has successfully used a similar measure (McFarland & Alvaro, 2000) and has found that perceptions of personal improvement over time are reflective of motivated illusions that allow one to see the self positively and to cope with threatening life experiences. Thus, perceptions of growth or temporal self-improvement provide an additional, though admittedly indirect, indicator of self-enhancing interpretive control.

We conducted the analyses using an ipsatization procedure that controls for response bias. This procedure transforms the data to equate each individual's overall mean on the questionnaire (Hicks, 1970) and thus controls for yea-saying or nay-saying biases, which are more common in certain cultures (Cunningham, Cunningham, & Green, 1977). Hofstede (1980) also used this procedure, and his data and our prior experience suggest that European Canadians tend to have more of a nay-saying bias than do those from some East Asian cultures. An example of the power of this procedure to remove response bias is described in Gurwitz (1987). All materials in the current study were validated by translating and back translating, as suggested by Brislin, Lonner, and Thorndike (1973). The translation and back-translation procedure involved an initial translation and back translation by two native Japanese speakers and a further review of the translation and back translation by two more native Japanese speakers.

RESULTS

CROSS-CULTURAL DIFFERENCES IN COPING STRATEGIES

Indexes of the various coping strategies were created by adding the appropriate coping items together and dividing the sum by the number of items. As predicted, a one-way MANCOVA using gender as a covariate revealed that the Japanese and Asian Canadian groups were more likely than the European Canadian group to report coping by accepting responsibility, $F(2, 98) = 6.19$, $p = .011$; accepting the problem, $F(2, 98) = 4.71$, $p = .003$; waiting things out, $F(2, 98) = 7.26$, $p = .001$; and using self-control, $F(2, 98) = 3.56$, $p = .032$, all constructs representing internally targeted control (see Table 1). However, Asian Canadians and Japanese did not report being more likely to cope by distancing, $F(2, 98) = .83$, $p = .441$. European Canadians were more likely than Japanese to cope by confronting other people, $F(2, 98) = 6.43$, $p = .002$. European Canadians and Asian Canadians were more likely than Japanese to report the use of escape and avoidance as a coping strategy, $F(2, 98) = 8.31$, $p < .001$. The groups did not differ significantly in tendencies to cope by seeking social support, $F(2, 98) = 1.39$, $p = .253$, or engaging in planful problem solving, $F(2, 98) = .440$, $p = .644$. Because there may be gender as well as cultural differences in coping strategies, we compared the magnitude of the zero-order correlations of cultural group and of gender with the coping variables. The magnitude of the effect was larger for culture than for gender in every case for which we reported a statistically significant result in both Studies 1 and 2.

TABLE 1
Coping Strategies Among European Canadians, Asian Canadians, and Japanese Exchange Students in Canada

	1		*2*		*3*			
	European Canadian (n = 22)		*East Asian Canadian (n = 57)*		*Japanese Exchange (n = 24)*			*Tukey*
	M	SD	M	SD	M	SD	p	*HSD*
Internally targeted control								
Accepting the problem	2.56	0.76	2.76	0.92	3.47	1.21	.003	1, 2 < 3
Waiting	2.71	0.84	2.71	0.94	3.56	1.00	.001	1, 2 < 3
Distancing	2.66	1.02	2.58	0.97	2.88	0.86	.441	
Self-control	2.45	0.71	2.94	0.80	2.64	0.67	.032	
Accepting responsibility	2.22	0.96	2.98	1.00	2.60	0.99	.011	1 < 2
Self-enhancing internally targeted control								
Positive reappraisal	3.85	0.79	3.29	0.93	3.00	1.16	.014	1 > 2*, 3
Externally targeted control								
Planful problem solving	2.51	1.12	2.54	1.04	2.73	1.09	.644	
Confrontation	3.26	1.06	2.71	0.91	2.23	1.05	.002	1 > 3
Other strategies measured by WOCC								
Seeking social support	3.36	0.93	3.17	1.04	3.59	0.98	.253	
Escape and avoidance	3.51	1.24	3.00	1.04	2.41	1.20	< .001	1, 2 > 3

NOTE: HSD = Honestly Significant Difference; WOCC = Ways of Coping Checklist. All inferential tests used ipsatized scores and controlled for gender. The means in the table were based on ipsatized scores but were not adjusted for gender.
*$p < .06$.

SELF-ENHANCING INTERPRETATIONS: PERCEPTIONS OF GROWTH

European Canadians were more likely than both Asian Canadians and Japanese to report engaging in positive reappraisal, $F(2, 98) = 4.46$, $p = .014$, a form of self-enhancing coping. Also, an overall index of perceived improvement was created for each participant by subtracting the average of the past self-ratings from the average of the current self-ratings. An ANCOVA controlling for gender indicated that European Canadians perceived more improvement overall than did the two Asian groups, $F(2, 89) = 8.76$, $p < .001$. Similar results were obtained for the self-improvement subscales when analyzed by a MANCOVA (see Table 2).

DISCUSSION

The cultural differences in internally targeted control that we anticipated were, for the most part, borne out. The internally targeted control strategies of using self-control, waiting, accepting responsibility, and accepting the situation were more frequently reported by East Asians than by European Canadians. European Canadians were more likely than Japanese to report confronting other people, a form of externally targeted control. In addition, European Canadians were more likely than Asian Canadians and Japanese to report coping via positive reappraisal and reported experiencing significantly more improvement across a variety of domains. Thus, European Canadians were more likely to engage in self-enhancing interpretive control.

TABLE 2
Perceptions of Improvement Among European Canadians, Asian Canadians, and Japanese Exchange Students in Canada

	1		*2*		*3*			
	European Canadian (n = 22)		*East Asian Canadian (n = 57)*		*Japanese Exchange (n = 26)*			*Tukey*
	M	SD	M	SD	M	SD	p	*HSD*
Overall index of improvement (47 items, α = .90)	2.15	1.01	1.04	1.29	0.77	0.87	< .001	1 > 2, 3
Wisdom and skills (13 items, α = .78)	2.62	1.00	1.59	1.31	1.04	1.12	< .001	1 > 2, 3
Appreciativeness and self-insight (11 items, α = .74)	2.74	1.07	1.53	1.36	1.02	1.04	< .001	1 > 2, 3
Positive social orientation (13 items, α = .73)	1.78	1.11	0.75	1.28	1.03	0.99	.007	1 > 3
Opportunities in life (4 items, α = .46)	2.39	1.27	0.88	1.77	0.58	1.02	< .001	1 > 2, 3
Honesty and reliability (3 items, α = .41)	1.81	1.29	0.57	1.48	0.29	1.14	.001	1 > 2, 3
General well-being (2 items, α = .40)	1.76	2.37	0.26	2.23	0.02	1.85	.018	1 > 2, 3
Spirituality (1 item)	1.78	1.77	1.52	2.64	1.29	1.75	.795	

NOTE: HSD = Honestly Significant Difference. Original items ranged from 1 (*not at all*) to 9 (*extremely*). The numbers in the table reflect the difference between ratings of one's prior standing and one's current standing on each dimension. Thus, higher numbers represent more perceived self-improvement. All inferential tests used ipsatized scores and controlled for gender. The means in the table were based on ipsatized scores but were not adjusted for gender.

The groups did not differ significantly in tendencies to cope by seeking social support or engaging in planful problem solving. Although we did expect European Canadians to be more likely than Asian Canadians and Japanese to engage in planful problem solving, examination of the planful problem-solving items revealed that it is not clear whether something about the self or something about the environment is being targeted to solve the problem. Thus, it may be the case that East Asians endorsed planful problem solving because they were engaging in internally targeted control, whereas European Canadians endorsed planful problem solving because they were engaging in externally targeted control.

STUDY 2

Study 2 used a different sample than Study 1 and differed from Study 1 in important ways. A sample of Japanese in Japan instead of Japanese sojourners in North America was recruited. It is possible that Japanese visiting Canada differ in significant ways from Japanese living in Japan; similar findings with both Japanese sojourners and Japanese in Japan would support the external validity of the study. A larger sample was used to increase statistical power. Also, Study 2 included additional control variables related to the nature of the stressor, including type of problem (death, illness, relational, relational termination, school

or job, psychological, and miscellaneous), self-rated severity of the problem, self-rated responsibility for causing the problem, and self-rated extent to which the problem had been solved. In particular, we wanted to control for the nature of the stressful situation in our analyses to reduce error variance due to these extraneous factors.

METHOD

PARTICIPANTS

Canadian participants were recruited from undergraduate classes at the University of British Columbia. This sample included 68 European Canadians (23 male, 45 female) and 106 East Asian Canadians (33 male, 73 female). These East Asian Canadians varied in ethnicity but were mostly Chinese; only 6 reported Japanese ethnicity. Japanese respondents were recruited from Kurume University, and this sample of 241 individuals including 115 males and 126 females. The average age of the European Canadian, East Asian, Canadian, and Japanese samples were 20.8 (range = 18 to 47), 20.5 (range = 18 to 32), and 19.5 (range = 18 to 44), respectively.

MEASURES

Nature of the problem. Respondents were asked to describe the most stressful event or experience that had occurred to them within the previous 6 months. A team of Japanese and Canadian researchers read through the event descriptions and developed a classification system for problem type. Coders then classified each description into one of the following categories (Kappa = .93): death of a significant other (7%), illness (8%), interpersonal problem (28%; excluding terminated relationship), terminated relationship (12%), psychological symptoms (6%), school-related or job-related problem (37%), and miscellaneous (2%). Participants also were asked to rate the problem's severity, extent of their responsibility for causing the problem, and extent to which the problem had been solved.

Coping self-report. We again used the WOCC. The larger numbers of participants in Study 2 allowed a factor analysis to assess whether the factor structure previously observed with the WOCC when used with Western English speakers (Folkman et al., 1986) replicated with Japanese. The factor analysis revealed that the WOCC structure largely replicated in Japan, a useful finding in and of itself. In particular, an oblimin-rotated unweighted least squares analysis extracting the expected eight factors with the Japanese data indicated that with the exception of the self-control subscale, all items loaded with weights of at least .30 on the expected factor. Only one of these items (again with the exception of items from the self-control subscale) cross-loaded on any second factor with a weight greater than .30. We retained the self-control subscale for analyses, but results with the self-control subscale must be treated cautiously. We further assessed factor equivalence across cultures by comparing factor loadings from separate factor analyses for the Japanese and Western English-speaking participants. We conducted this comparison by calculating correlation coefficients between the factor loadings. For this analysis, we only extracted seven factors because of the problems with the self-control items. All analogous factors produced correlation coeffi-

cients (between Japanese and Western English-speaking participants) over 0.8, further suggesting an impressive replication of the factors across cultures.

The added subscale of acceptance of the problem (adapted from a stress questionnaire developed by Ozeki et al. [1994] and measured with three items) produced an alpha of .75 with the Japanese sample and .73 with the overall sample. The two waiting items, also derived from Ozeki et al., produced an intercorrelation of .77 in the Japanese sample and .72 in the overall sample. A higher order factor analysis was also conducted to assess the relations between the constructs derived from Ozeki et al. and the constructs assessed by the WOCC. Both of these Japanese-derived constructs loaded on the same factor as the distancing scale of the WOCC whether we used the Japanese sample or the Canadian sample or the overall sample, thereby providing some support for the validity of these scales. It is interesting that when we included all participants in the higher order factor analyses, Ozeki et al.'s acceptance of the problem construct consistently loaded higher than the other two scales, suggesting that Ozeki et al.'s acceptance construct may be especially central to the more general construct of internally targeted control. The questionnaires were administered in the order in which the scales were described above (description of problem, WOCC, acceptance and waiting scales). As in Study 1, materials were translated and back translated as suggested by Brislin et al. (1973).

We anticipated that Japanese would most frequently report internally targeted control strategies, that European Canadians would least frequently report such strategies, and that Asian Canadians would tend to fall in the middle. We expected the opposite pattern for externally targeted control. As in Study 1, we conducted the coping analyses using an ipsatization procedure. The main findings regarding statistical significance (using a cutoff of $p < .05$) were unchanged by the transformation, though as we expected, the p values were slightly reduced (i.e. strengthened) by using this procedure to reduce the effects of response bias.

RESULTS

Coping strategies of the three cultural groups were compared via MANCOVA, controlling for gender of respondent, type of problem (death, illness, relational, relational termination, school or job, psychological, and miscellaneous), self-rated severity of the problem, self-rated responsibility for causing the problem, and self-rated extent to which the problem had been solved.

As shown in Table 3, East Asian cultural background was associated with increased internally targeted control on the distancing, $F(1, 405) = 14.19$, $p < .001$, accepting, $F(1, 405) = 9.61$, $p = .002$, and waiting, $F(1, 405) = 12.32$, $p = .001$, subscales. Western English-speaking cultural background was not, however, associated with increased externally targeted control as assessed with the planful problem-solving or confrontive-coping subscales. Though only a trend, the European Canadian participants did score higher than the Japanese and Asian Canadian participants on self-control. This result must be treated cautiously, however, both because the result was not statistically reliable and because this was the only scale for which we lack support for factorial equivalence across cultures. Pairwise follow-up analyses were conducted using the Tukey-HSD (Honestly Significant Difference) procedure on the adjusted means, which does not require prior justification by a significant omnibus test. Among other findings, these tests supported the finding from Study 1 that European

TABLE 3
Coping Strategies Among European Canadians and Asian Canadians in Canada and Japanese in Japan

	1		*2*		*3*			
	European Canadian (n = 68)		*East Asian Canadian (n = 106)*		*Japanese in Japan (n = 241)*			*Tukey*
	M	SD	M	SD	M	SD	p	*HSD*
Internally targeted control								
Accepting the problem	2.49	0.98	2.44	0.93	2.99	1.11	.002	1, 2 < 3
Waiting	2.40	1.05	2.59	0.93	2.92	1.04	.001	1 < 3
Distancing	2.27	1.02	2.35	1.00	2.90	1.08	<.001	1, 2 < 3
Self-control	2.71	0.76	2.24	1.04	2.50	0.85	.073	
Accepting responsibility	2.64	1.01	3.00	1.09	2.70	1.08	.409	
Self-enhancing internally targeted control								
Positive reappraisal	2.98	1.25	2.87	1.08	2.64	1.14	.264	1 > 3
Externally targeted control								
Planful problem solving	2.91	1.27	3.02	1.21	2.86	1.03	.436	
Confrontation	2.65	0.83	2.59	0.93	2.54	1.00	.294	
Other strategies measured by WOCC								
Seeking social support	3.32	1.01	3.12	1.04	3.26	1.20	.667	
Escape and avoidance	3.38	1.07	3.34	1.06	2.67	1.03	< .001	1 > 2, 3

NOTE: HSD = Honestly Significant Difference; WOCC = Ways of Coping Checklist. All inferential tests used ipsatized scores and controlled for gender, problem type, severity, responsibility, and the extent to which the problem had been solved. The means in the table were based on ipsatized scores but were not adjusted for the other control factors.

Canadians engaged in more self-enhancing interpretive control as indicated by the positive reappraisal items on the WOCC than did the Japanese. The groups also differed on the escape or avoidance subscale, $F(1, 405) = 32.99$, $p < .001$. As found in Study 1, European Canadians were more likely to cope by escape and avoidance than were the Japanese.

DISCUSSION

The groups differed in the expected direction on most of the internally targeted control scales. With the exception of the theoretically supported finding regarding self-enhancing interpretive control, the data support the notion that East Asian background is associated with more active internally targeted control strategies. These findings suggest that cultural differences in orientation toward internally targeted control coping are not limited to comparisons of European Canadians and Asian Canadians with East Asian soujourners in North America (the type of sample used in Study 1).

The groups did not differ in tendency to engage in planful problem solving or confrontive coping, types of coping we had classified as externally targeted control strategies. One possible explanation for the lack of difference in planful problem solving deserves serious consideration. The Japanese may have tended to interpret internally targeted control as a strategic and planful response and thus affirmed in response to the WOCC that they were engaged in planful problem solving. Thus, especially in Japan, the planful problem-solving items (e.g., "knew what had to be done, so I doubled my efforts to make things work" and "made a plan

of action and followed it") may be ambiguous in terms of whether they refer to internally or externally targeted control.

GENERAL DISCUSSION

Taken together, these studies provide initial cross-cultural portraits of coping responses to stressful life events. Both Study 1, which was conducted entirely in the West, and Study 2, which also included Japanese in Japan, supported the hypothesis that people from collectivist, high-power distance, Buddhism-influenced, and Taoism-influenced countries tend to engage in more internally targeted control strategies in stress and coping contexts.

Self-enhancing interpretive control, however, which could be considered a type of internal control, was more common among Western English speakers as shown by more frequent endorsement of the positive reappraisal items on the WOCC in Studies 1 and 2 and a greater tendency to report personal growth in Study 1. This result concurs with the growing body of literature suggesting that self-enhancement is particularly characteristic of individuals influenced by Western English-speaking cultures (Heine & Lehman, 1999).

The self-report nature of the data offered some advantages. In particular, in the absence of self-report data, passivity (i.e., relinquishing control) may be indistinguishable from active internal-control responses, such as distancing, but the strategies may be very different in terms of adaptiveness (Thurber & Weisz, 1997). Also, the different strategies of internally targeted control (e.g., waiting, self-control, reappraisal, denial, repression) would be difficult to distinguish from one another in the absence of self-report data. Such self-reports, however, are limited in some ways. In particular, some evidence suggests that people's recollections of their own coping tend to be somewhat inaccurate, and it has been rightfully suggested that in-depth interviews provide more valid portraits of actual coping strategies than do coping checklists (Coyne & Gottlieb, 1996). Future studies could extend the current findings by including in-depth unstructured interviews to supplement the rating scale data. Further studies could also examine in more detail the convergent and discriminant validity of the WOCC scales across cultures because one limitation of the current study was the limited validity evidence gathered regarding these scales. Longitudinal follow-ups or daily diaries also would provide a more complete view of coping in each culture. Future studies could also explore whether the current findings have implications for understanding suicide in Japan; in particular, further research could explore whether those contemplating suicide often perceive this option as the ultimate internally targeted control attempt (i.e., ending the self). Gender also deserves attention in the future. For the current studies, effects were larger for culture than for gender in every case for which we reported a statistically significant result. Nonetheless, a fascinating direction of study would be to explore whether gender differences in control orientations vary across cultures. Also, Yamaguchi (2001) suggested that East Asians may often exert externally targeted control indirectly or through proxy agents. This possibility that East Asians pursue these different types of externally targeted control was not assessed here and could be examined by future studies.

UNDERLYING BELIEFS

Nonobvious differences in belief systems often account for many cultural differences (Peng, Ames, & Knowles, 2001; Tweed & Lehman, 2002), and it is interesting to explore the beliefs that may contribute to cultural differences in tendencies toward internally targeted

control. One clue to a relevant underlying belief comes from Chiu, dweck, Tong, and Fu (1997), who have reported a consistent pattern in which Chinese cultural influence is associated with an entity view of the world, which means the world is seen as difficult to change (see Chiu, Hong, & Dweck, 1997, for a discussion of entity vs. incremental theories). In addition, recent research suggests that Japanese may view the self as being more incremental (i.e., more able to adapt; Heine, Takata, & Lehman, 2001). Such beliefs could lead to an inference that the best response to a problem is not so much to change the world but instead to adjust the self to adapt to the fixed state of the world. These underlying beliefs may account for some of the differences in coping strategies across cultures.

THE QUESTION OF ADAPTIVENESS

A debate regarding the relative adaptiveness of internally and externally targeted control goes back in the East at least to the time when Lao Tzu wrote the *Tao Te Ching* (circa 400 BCE) and in the West at least to the time when Boethius wrote *The Consolation of Philosophy* (circa 500 CE). Modern data regarding the adaptiveness of internally targeted control strategies are, however, mixed. In one longitudinal study of HIV infection (Mulder, Griensven, Vroome, Antoni, & Sandfort, 1999), an internally targeted strategy labeled *avoidance coping* (including focusing on other things and letting things take their course) was associated with a slower advance of HIV infection as measured by the slope at which helper-inducer (CD4) cells declined. In contrast, in other contexts, avoidant coping has been associated with negative mental health outcomes (Aldwin & Revenson, 1987). Some studies suggest that problem-focused coping strategies (externally targeted control) tend to be more beneficial in changeable situations and that emotion-focused strategies (internally targeted control) tend to be more beneficial in unchangeable situations (Terry & Hynes, 1998; Weisz et al., 1994).

Also, some evidence suggests that internal control strategies that add new cognitions may be more beneficial than internal control strategies that suppress existing cognitions. Wegner (1994) highlighted the potential counterproductivity of thought suppression when he demonstrated that under conditions of cognitive load, efforts to suppress particular thoughts were associated with increased incidence of those thoughts. To the extent that internal control involves thought suppression (e.g., denial, repression) under stressful conditions, internally targeted control may be particularly maladaptive as suggested by Wegner's work (Burns, 2000; McKenna, Zevon, Corn, & Rounds, 1999). However, other forms of internally targeted control, such as telling oneself the problem is not that important or waiting (responses more frequently reported by East Asians in our studies) or distracting oneself, may often be adaptive (Mulder et al., 1999). It is important for future cross-cultural research to compare the adaptiveness of various internal and external control strategies both within and across cultures.

CONCLUSION

Some authors (Schulz & Heckhausen, 1999) have asserted that striving for externally targeted control is a human universal but that the expression of control is, in part, shaped by culture. Our findings support this notion. It appears that European Canadians, Asian Canadians, and Japanese all incorporate aspects of externally targeted control into their coping strategies but that those from Asian backgrounds are more likely to engage in coping strategies

involving internally targeted control. It might be the case that internally targeted strategies are indeed more often effective in East Asian cultural contexts than in Western English-speaking cultural contexts.

Because we take the cultural psychology perspective that the self and the cultural context are mutually constitutive (Kitayama et al., 1997), we believe future research could benefit from exploring differences in the preponderance of situations in the West and in the East that pull for internally focused and externally focused control responses. Triandis (1989) suggested that all persons have at least three selves, and the extent to which each is sampled is influenced by the context surrounding the person. A recent article by Hong, Morris, Chiu, & Benet-Martinez (2000) suggests that even relatively minor situational cues, such as viewing pictures of flags or historical landmarks, significantly modifies the nature of cultural characteristics expressed by individuals. Likewise, we assume that all healthy individuals can sample from a repertoire of both internally focused and externally focused control strategies, but both cultural differences in the preponderance of particular situation types as well as cultural differences in individual psychology may contribute to the frequency with which these differing responses are manifested in the East and the West.

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