Social Psychology Quarterly
1998, Vol. 61, No. 2, 101–120

Asian Ethnicity and the Sense of Personal Control*

JAYA SASTRY
Duke University

CATHERINE E. ROSS
Ohio State University

The relationship between the sense of personal control and psychological well-being is well established, but this association may be specific to Western cultures. In this study we examine the relationship between Asian culture and the sense of personal control, and the impact of perceived control on depression and anxiety among Asians and non-Asians. Using the World Values Survey and the combined responses of four surveys in the United States, we find that Asian Americans and Asians in Asia (Japan, South Korea, China, and India) both report lower levels of perceived control than non-Asians. Furthermore, the sense of personal control has less of an impact on psychological distress for Asians. Findings are interpreted in terms of Asian collectivist values. Compared with individualistic Western cultures, Asian cultures emphasize selfless subordination to family and community, which may decrease levels of personal control. Furthermore, the dictates of collectivist cultures are such that high levels of personal control among Asians may be a norm violation. For this reason, high levels of perceived control may be associated less strongly with psychological well-being for Asians.

The relationship between the sense of personal control and psychological well-being is well established, but this association may represent a Western "bias" (Miller-Loessi 1995). Some scholars argue that because a sense of personal autonomy reflects Western values, it may have relatively little effect on the psychological well-being of non-Western ethnic groups (Hofstede 1980; Hogan and Emler 1978; Triandis 1988). Most studies on the social determinants of psychological well-being use surveys that are drawn from Western, industrialized nations, and focus largely on whites of European descent. There is theoretical reason to expect that the causal attribution of outcomes in one's life to one's own efforts and abilities, as opposed to forces external to oneself, may be more common in individualistic than in collectivist cultures, and may have a stronger effect on psychological well-being (Al-Zahrani and Kaplowitz 1993; Bond 1983; Bond and Hwang 1986; Crittenden 1991).

In this study we examine the relationship between Asian culture and the sense of personal control, and the impact of perceived control on depression and anxiety among Asians and non-Asians. We expect that Asian ethnic identity is associated with comparatively low levels of perceived control. Because of an emphasis on subordination to family and traditional sources of influence, Asians may feel less freedom, less autonomy,

*The National Science Foundation funded the Work, Family and Well-being Survey with Grant SES-8916154 to Catherine E. Ross; the National Institute on Aging funded the Aging, Status, and Sense of Control Survey with Grant RO1 AG12393 to John Mirowsky and Catherine E. Ross; the National Institute of Mental Health funded the Community, Crime, and Health Survey with Grant RO1 MH51558 to Catherine E. Ross and Chester Britt; and the University of Illinois Research Board funded the Illinois Survey of Well-Being with a grant to Catherine E. Ross and John Mirowsky. Sampling, pretesting, and interviewing on the four U.S. surveys were conducted by the Survey Research Laboratory of the University of Illinois. The World Values Survey was funded by National Science Foundation Grant SES-9122433 to Ronald Inglehart. Sampling, fieldwork, and interviewing were conducted by various local survey organizations in the different nations. The World Values Survey is available through the International Consortium for Political and Social Research. We are equal co-authors. Address communications to Catherine Ross, Department of Sociology, 300 Bricker Hall, Ohio State University, 190 N. Oval Mall, Columbus, OH 43210 (e-mail: ross.131@osu.edu).

and generally less control over outcomes in their own lives. We further expect that personal control among Asians has a weaker negative association with psychological distress than among non-Asians. The sense of control has well-established negative effects on distress among white Americans, but we do not expect Asians to be benefited as greatly by this psychological resource. Asian collectivist identity dictates that personal goals are subordinated to goals of the family and community; therefore we predict that perceived ability to fulfill personal goals will have less effect on Asians' psychological well-being. We examine these issues among Asian Americans in the United States and Asians in their home countries.

DETERMINANTS OF THE SENSE OF PERSONAL CONTROL

The sense of personal control is a learned, generalized expectation that events and circumstances in one's life are contingent on personal choices and actions (Rotter 1966; Seeman 1959, 1983). Individuals with high perceived control believe that they can master, control, and effectively alter the environment, and can determine outcomes in their lives (Mirowsky and Ross 1989). Perceived powerlessness (the opposite) is a learned, generalized expectation that outcomes of situations are determined by forces external to oneself, such as powerful others, luck, fate, or chance. Concepts related to the sense of personal control appear under a number of different names, notably internal locus of control (Rotter 1966), sense of personal efficacy (Downey and Moen 1987), self-efficacy (Gecas 1989), self-directedness (Kohn and Schooler 1982), mastery (Pearlin et al. 1981), personal autonomy (Seeman 1983), and instrumentalism (Wheaton 1980), and, at the other end of the continuum, perceived powerlessness (Seeman 1983) and fatalism (Wheaton 1980).

To date, theories of the social determinants of personal control have focused on structural, not cultural, factors. Most refer to power in the socioeconomic order or in the family. Research finds that high socioeconomic status overall, and high levels of income and education in particular, being employed (as compared with being retired, a homemaker, or unemployed), and work in complex, nonroutine, autonomous, and well-compensated jobs are associated with high levels of control (Bird and Ross 1993; Downey and Moen 1987; Kohn and Schooler 1982; Mirowsky and Ross 1989; Pearlin et al. 1981; Ross and Mirowsky 1992; Wheaton 1980). Cultural determinants of perceived control, especially the relationship between Asian ethnicity and personal control, are relatively unexplored.

Asian Culture and Collectivism versus Individualism

A pervasive theme in comparative research is the contrast between a familial and collectivist commitment, on the one hand, and individual self-reliance and autonomy, on the other. A number of scholars have categorized the dimensions on which cultures differ: Individualism versus collectivism, responsibility for self versus responsibility for the larger collective, and mastery versus submission always stand out (Hofstede 1980; Kagitcibasi and Berry 1989; Schwartz 1995). Cultures are neither entirely individualistic nor fully collectivist; rather, they are more or less individualistic or collectivist in relation to others. Cultures that fall at the individualist end of the continuum place more emphasis on individual autonomy; those at the collectivist end emphasize the larger group (Triandis 1989).

Asian culture is more collectivist than Western cultures (Al-Zahrani and Kaplowitz 1993; Bond 1983, 1988; Hsu 1981; Liang and Bogat 1994; Markus and Kitayama 1991). An Asian collectivist orientation may reduce the sense of personal control. Hui and Triandis argue that Western cultures encourage individuals to pursue personal goals and to devote a great deal of attention to the development of the individual, while Asian cultures value loyalty to the extended family and encourage individuals to subordinate personal wishes to the overall goals of the family and the traditional community (Hui 1988; Hui and Triandis 1986; Triandis 1989). In individualistic Western cultures, people are encouraged to be autonomous and independent, and to pursue

individual achievement. These cultures place comparatively less emphasis on the mutual obligations of family and friends and more on the individual's personal responsibility for his or her own life. In contrast, individuals in collectivist Asian societies are subject to many demands by kinship networks. Because they are encouraged to subordinate their personal needs to the demands of the family or the traditional communities, Asians may perceive less freedom, less autonomy to further their own goals, and less ability to determine outcomes in their own lives. Waterman (1984) argues that individualism is related to the sense of personal control, mastery, and instrumentalism; collectivism, to a lack of perceived control.[1]

Although we know of no research that compares the sense of personal control among Asian American adults or Asian adults with that of white American adults, some research has found that Asian students have lower levels of perceived control than white American students. Asian American students of all backgrounds have lower levels of perceived control than do U.S. white students (Coleman et al. 1966; Guagnano et al. 1986), and female Chinese students have a more external locus of control than their white counterparts in the United States (Crittenden 1991; Lao 1978). These studies, however, were limited to students, and the samples were not nationally representative either domestically or internationally.

CROSS-CULTURAL CONSEQUENCES OF THE SENSE OF CONTROL

The negative relationship between the sense of personal control and psychological distress is well established (Gecas 1989; Kobasa, Maddi, and Courington 1981; Mirowsky and Ross 1989). Individuals with high levels of control meet problems with persistence and attention, are more likely to take action when difficulties arise, and consequently are more able to surmount these obstacles. In contrast, low levels of control undermine the will and motivation to cope actively with problems (Mirowsky and Ross 1989; Wheaton 1980). Perceived control over both good and bad outcomes is associated with low levels of depression (Krause and Stryker 1984; Mirowsky and Ross 1990). The beliefs stating "I am responsible for my own successes" and "I can do just about anything I set my mind to," as well as "I am responsible for my failures" and "My misfortunes result from the mistakes I have made," have large negative associations with depression (Mirowsky and Ross 1990). Is the negative association between personal control and depression conditioned by culture?

If personal responsibility for one's own life is a Western value, its effect on psychological well-being may be different in Eastern cultures (Bond 1988). Triandis (1988) believes that collectivist cultures encourage individuals to adhere to rigidly ascribed social roles, and that individuals internalize these norms and find adherence rewarding. Thus it is possible that this loss of freedom may not be particularly distressing for the more collectivist Asians. Failure to achieve personal goals may be less important because individuals are encouraged to subordinate their own needs to those of the group. Not only are these individuals rewarded for fulfilling their obligations to community and family; individuals who pursue individual autonomy and who strive to meet their personal goals may be punished. Compared with those in individualistic cultures, persons in collectivist cultures may derive less benefit to well-being from a high sense of personal control.

Although nobody has directly tested the proposition that the sense of personal control has less effect on distress for Asian adults than for Westerners, some studies provide indirect evidence. Zea, Jarama, and Bianchi (1995) found an interaction between Asian ethnicity and locus of control in the effect of the latter on personal adjustment. A high

[1] Other scholars have questioned whether a distinctly Asian culture exists. According to Espiritu (1992), Asian-American is a reified term with roots in overbroad U.S. census categories, interest-group politics, and Asians' reactive solidarity in the face of threats by external groups. Large within-group differences exist because Asian Americans come from very different cultures and backgrounds. Although we agree with this point, it is also likely that Asian cultures possess some common elements. The presence of within-group differences does not preclude between-group differences: Asians as a whole may differ from non-Asians in their levels of perceived control.

level of personal control is a strong predictor of successful adaptation to college by Anglo-Americans, but no such relationship exists for Asian Americans. Aldwin and Greenberger (1987) found that independence from parents is associated with lower levels of psychological distress for Caucasian students, but not for Korean students. Crittenden and Lamug (1988), however, found little difference between Filipino and American students in the effects of stable internal global attributions on depression. All of these studies, however, examine students; none correlate direct measures of the sense of personal control with distress; and none use nationally representative samples either domestically or internationally. Still unexplored is the relationship between the sense of control and measures of psychological distress, such as anxiety and depression, for adult Asians and Asian Americans of all ages.

DATA SOURCES

We use two data sets, one international and one domestic. If Asian cultures possess common elements, we would expect to see them in various Asian countries and among Asian Americans in the United States. This is a very stringent test of the propositions because almost all other things differ across these countries, and between Asians in their home countries and Asian Americans in the United States The first data set is based on the international World Values Survey. The second is a domestically produced data set that combines four surveys employing identical measures: Community, Crime, and Health (CCH); Work, Family, and Well-Being (WFW); the Illinois Survey of Well-Being (ISW); and Aging, Status, and Sense of Control (ASOC). We use these two data sets to examine both domestic and international differences between Asians and Westerners in relative levels of personal control and in relative effects of personal control on distress.

The 1990 World Values Survey was conducted in 42 nations, including most major geographic areas of the globe, and represents various levels of economic development. The organizing agency, the European Values Systems Study Group, developed the questionnaires to make the questions directly comparable despite regional differences in language and culture. Each survey was conducted within a four-year period, between 1989 and 1992. The surveys were conducted in face-to-face interviews by various local professional survey agencies. The quality of the samples from the various countries differs because of differences in the infrastructures and the resulting differences in capabilities for conducting nationally representative surveys. For instance, the rural population in some of the developing nations was geographically isolated and difficult to reach; as a result, the more affluent urban dwellers were greatly oversampled. We included a sample weight to correct for this situation. Also, because the collected samples do not proportionately represent the population sizes of the countries from which they are drawn, we added another sample weight so that the samples would represent global population more accurately. The study includes many small nations; results based on their combined sample sizes would far outweigh the results from the larger countries. For example, the combined sample sizes of the Nordic and Baltic countries in the survey, if unweighted, would be larger than the combined sample sizes of India, China, and the United States. The weight factor rectifies this problem by giving more weight to more populous nations.

After excluding countries with missing data on our core variables, the sample includes the following 33 countries, with unweighted sample sizes: Argentina (N = 1,002), Austria (N = 1,460), Belgium (N = 2,792), Brazil (N = 1,782), Britain (N = 1,484), Bulgaria (N = 1,034), Canada (N = 1,730), Chile (N = 1,500), China (N = 1,000), Denmark (N = 1,030), Estonia (N = 1,008), Finland (N = 588), the former West Germany (N = 2,101), France (N = 1,002), Hungary (N = 999), Iceland (N = 702), India (N = 2,015), Ireland (N = 1,000), Italy (N = 2,010), Japan (N = 1,011), Latvia (N = 903), Lithuania (N = 1,000), Mexico (N = 1,531), the Netherlands (N = 1,017), Norway (N = 1,239), Portugal (N = 1,185), Romania (N = 1,103), Russia (N = 1,961), Spain (N = 4,147), South Korea (N = 1,251), Sweden (N = 1,047), Turkey (N = 1,030), and the United

States (N = 1,839).

The domestic data set combined responses of four separate surveys conducted in the United States between 1985 and 1995. We combined these surveys to increase the size of the Asian American population. The questions are almost identical on all of the surveys; therefore combining the four surveys into a single data set poses no significant problems. The Illinois Survey of Well-Being is a telephone survey of a representative Illinois sample, conducted in 1985. Random-digit dialing was used in the Chicago area; systematic random selection of numbers from current telephone directories was used for other parts of the state. The sample includes 809 respondents between ages 18 and 85. The Work, Family, and Well-Being Survey, a nationally representative U.S. telephone survey conducted in 1990, used random-digit dialing to select households. It includes 2,301 respondents between ages 18 and 90. The Aging, Status, and Sense of Control Survey is also a nationally representative sample of U.S. households, with an oversample of persons age 60 and older. Respondents were selected through a prescreened random-digit dialing method and were interviewed by telephone in 1995. The final sample contains 2,592 respondents, age 18 to 96. This sample was weighted to account for the oversample of elderly persons. Finally, the 1995 Community, Crime, and Health Survey is a representative sample of Illinois households. Respondents were selected through a prescreened random-digit dialing method and were interviewed by telephone. The sample contains 2,482 respondents, age 18 to 95. The total sample size of the domestic data set is 7,599. (For full descriptions of the respective samples, see Mirowsky and Ross 1992, 1996; Ross and Jang 1996; Ross and Mirowsky 1992).

MEASUREMENT

Comparative cross-cultural and cross-national social psychology is almost nonexistent, largely because numerous methodological hazards make cross-national research seem so formidable that most researchers abandon the attempt (Lincoln and Kalleberg 1990; Miller-Loessi 1995). Measurement in cross-cultural and cross-national research is the most intimidating of these concerns. We rely partly on the face validity of the measures, but it is possible that these questions mean different things to members of different groups. Therefore we triangulate different surveys, with different measures, in the United States and cross-nationally. If different measures in the United States and abroad show the same patterns, we will be more sure of the validity of results.

Asian Culture

The World Values Survey includes four Asian nations: China, India, South Korea, and Japan. All of these nations have distinctly Asian cultures but differ radically in levels of economic development. To examine differences between Asian and non-Asian nations, we included all the Asian countries in a single category coded 1. Non-Asian nations were coded 0. We will also examine each Asian nation separately. Thus, in the World Values Survey, Asian culture is indicated by the country in which a survey respondent lives. The U.S. data set includes a question that asks the respondent to indicate race or ethnicity. In this data set, Asian ethnicity reflects self-identity. A dummy variable for Asian was coded 1 for those who identified themselves as Asian; a dummy variable for black was coded 1 for those who identified themselves as black or African American; whites were coded 0, the comparison group in the regression analyses. Other racial and ethnic groups were excluded.[2] The sample contains 121 Asian Americans.

A possible shortcoming of the domestic sample is that all Asians are grouped into a single category; thus intra-ethnic differences are disregarded. We focus on cultural elements common to those of Asian ethnicity, rather than on cultural, economic, and historical differences between groups. With the World Values Survey we will be able to see whether individuals in China, India, South Korea, and Japan differ significantly on mean

[2] Asian Americans are the most likely of any racial or ethnic group to check "other race," according to the U.S. Census. Thus we have probably eliminated some Asian Americans who did not identify themselves as Asian.

levels of personal control and on its consequences for psychological distress, but in the United States we cannot differentiate Asian Americans. Nonetheless, by examining Asians both nationally and internationally, we hope to provide evidence that despite large differences among Asians, Asian culture has common elements with implications for the sense of control and its effect on psychological well-being.

Perceived Control

The sense of control is measured with a single item in the World Values Survey: "Some people feel that they have completely free choice and control over their lives, and other people feel that what they do has no real effect on what happens to them. Please use the scale to indicate how much freedom of choice and control you feel you have over the way life turns out." Respondents choose a position on a 10-point scale; high scores indicate "a great deal," and low scores indicate "none at all." More questions designed to tap the underlying concept would have been desirable, but the survey contained no others, and this question appears to have face validity. Although we cannot assess reliability, we check external validity by examining the correlations of education and income with the sense of control in each of the 33 countries separately. In 28 countries, education and income are correlated positively with perceived control and at least one of these correlations is significant. In Latvia, Hungary, Brazil, Argentina, and Spain, neither is significant. Overall this check shows good external validity in that high socioeconomic status is associated with high perceived control in 84 percent of the countries. Furthermore, three of the countries showing little association between SES and perceived control are Latino or Hispanic; thus the lack of predicted associations could indicate a substantive rather than a methodological result.

The sense of control measure in the domestic data set taps dimensions of control and lack of control over good and bad outcomes, using the Mirowsky and Ross (1991) 2X2 index. The scale is conceptually similar to the personal control component of Rotter's (1966) locus-of-control scale (modified for community surveys by using Likert-scale responses rather than forced-choice responses) and to the mastery scale of Pearlin et al. (1981). The major difference is that this scale balances statements claiming control against those denying control, and statements about good outcomes against those about bad outcomes; thus defense and agreement bias are eliminated (Mirowsky and Ross 1991). Eliminating spuriously large reliability due to agreement bias increases validity; however, it also decreases reliability, which is .52 for Asians and .59 for non-Asians. (See the appendix for items in this index.)

Psychological Distress

The World Values Survey includes the Bradburn Affect Balance Scale of positive and negative mood. The distress end of the scale includes questions indicating depressed and anxious mood; the well-being end of the scale contains questions indicating lack of depression and anxiety as well as positive feelings of hope, pride, and enjoyment. (The items are shown in the appendix). Some of the negative affect questions, such as "lonely" and "depressed," indicate depression; some, such as "restless," indicate anxiety; others such as "bored" and "upset" are less clear. Agreement bias produces two factors in the exploratory factor analysis: positive and negative affect. Individuals' tendency to agree (or disagree) with questions regardless of content cross-cuts the concept of interest and gives the misleading impression, in exploratory factor analysis, that positive and negative affect are two distinct concepts rather than two ends of a single continuum (Mirowsky and Ross 1996). Scales that balance positively and negatively worded questions are one solution to the problem of agreement bias. In the World Values Survey, responses are coded yes/no. Ideally, questions about mood allow people to answer on a Likert scale rather than "yes" or "no," especially in cross-national research, where the cutoff for "no" may be different for people of different national origins in different countries. In the World Values Survey, alpha reliability is .48 in Asian nations and .54 in non-Asian nations.

Despite these problems, to our knowledge this is the only cross-national data set containing numerous countries, with large numbers of cases and fairly representative samples, which measures psychological distress and the sense of personal control.

In the domestic data set we create two distress scales: depression and anxiety. Depression is measured with a modified form of the Center for Epidemiological Studies' Depression Scale (CESDm) (Ross and Mirowsky 1984). This seven-item index includes both the mood and the malaise components of depression (Mirowsky and Ross 1989). Alpha reliability of the depression scale is .82 for non-Asians and .79 for Asians. Anxiety is measured by a three-item scale (Mirowsky and Ross 1995); alpha reliability is .80 for both Asians and non-Asians. (See the appendix for items in the depression and anxiety scales.)

Level of Economic Development

Because the World Values Survey includes Asian nations at various levels of economic development levels, we adjust for this element when examining the relationship between Asian ethnicity and the sense of control. Inkeles and Smith (1974) demonstrated that high levels of economic development are associated with higher levels of instrumentalism and a greater sense of personal control. Adjustment for economic development allows us to crudely separate structural and cultural effects.

We use real gross domestic product (GDP) per capita, in purchasing parity power dollars, as our indicator of development. Real GDP is the total value of the output of goods and services produced by an economy (United Nations Development Program 1994). The value of goods and services produced domestically by a nation indicates the level of economic development: a higher score indicates greater productivity, efficiency, output, and quality of the production of industrial goods and services. Our indicator of real GDP per capita is based on purchasing power parities dollars, which measure the relative domestic purchasing powers of currencies. Purchasing power parities transform the gross domestic product into internationally comparable scales. Real GDP per capita, using purchasing power parities, is regarded as the most sensitive indicator of economic development available from the various international agencies (U.N. Development Program 1994).

We assigned each respondent a GDP score for his or her country of residence for the year of the survey. We score GDP in thousands of U.S. dollars; GDPs range from a low of $1,072 (India) to a high of $21,449 (U.S.).

Socioeconomic Status

We adjust individuals' socioeconomic status in all analyses in order to examine effects of Asian culture independent of structural factors. We include employment status, education, and household income. In the World Values Survey, income is measured as total annual income, divided into 10 equal categories. The income scales are adjusted for the value of local currency to make them directly comparable across nations. In the U.S. data set, household income is the total annual household income from all sources, scored in thousands of dollars. In the United States, we measure education in years of formal education completed. In the World Values Survey, education is measured by the age at which a respondent finished his or her education, to make this variable comparable across countries. The lowest score is 1 (completed education at age 12 or younger); the highest is 10 (completed education at age 21 or older). In both data sets, employment status is coded 1 for persons employed for pay more than 20 hours a week, and 0 for those who are not employed.

Household Status

Household status is measured by marital status and number of children. In both data sets, marital status is coded 1 for respondents who are currently married or living together as married, and 0 for the divorced, separated, widowed, or never married. In the World Values Survey, the total number of the respondent's children is used; in the domestic survey, the number of children is indicated by the total number of children living in the home.

Sociodemographics

In both data sets, sex is coded 1 for females and 0 for males; and age is coded in number of years.

ANALYSIS

We hypothesize, first, that Asian ethnicity, both domestically and internationally, is associated with comparatively low levels of personal control. We compare Asian Americans with white Americans, adjusting for socioeconomic status, household status, and sociodemographics. We further compare persons who live in an Asian country with all others, adjusting for GDP and for individual socioeconomic status, household status, and sociodemographics.

Second, we hypothesize that the negative relationship between the sense of personal control and psychological distress is weaker for Asians than for non-Asians. According to Miller-Loessi, interaction models provide the most appropriate test of the way in which "culture moderates or conditions the effects of other major determinants of human behavior" (1995: 406) or, we add, human feelings. Miller-Loessi recommends interaction modeling, as described by Aiken and West (1991); we follow this recommendation. We predict distress, depression, and anxiety from Asian ethnicity, the sense of control, and their interaction (adjusting for SES, household status, and sociodemographics).

We test both hypotheses in the domestic data set and in the World Values data set.

RESULTS

Table 1 shows differences in means between Asians and non-Asians in both the domestic and the international surveys. The sense of personal control is significantly lower for Asians than for non-Asians in the United States, and individuals who live in Asian countries report a lower sense of control than those who live elsewhere. Is this finding due to individual socioeconomic or household status differences or to differences in the economic development of Asian and non-Asian countries?

Table 2 shows that in the United States, when we adjust for socioeconomic and household status and for sociodemographics, Asian Americans have significantly lower levels of personal control than do whites, the omitted group. This effect is highly significant. Examination of the standardized coefficients shows that Asian ethnicity has the fourth largest relationship to the sense of control, following education, age, and family income. Surprisingly, Asian ethnicity has a stronger relationship with the sense of control than does being black or being employed; these two variables have well-established relationships to perceived control.

Table 3, which shows regression results from the World Values Survey, provides further support for the hypothesis that Asian ethnicity decreases levels of personal control. Asian ethnicity, indicated by living in South Korea, India, China, and Japan, shows a significant negative relationship with the sense of control. This effect is significant with adjustment for GDP and for individual socioeconomic and household status and sociodemographic characteristics. The standardized coefficients reveal that this is the largest relationship in the model.

A possible problem with this approach is that it obscures differences among Asian nations. It is possible that levels of personal control are lower among residents of some Asian nations but not among others. To test for this possibility, we created four separate dummy variables for South Korea, India, China, and Japan, each in comparison with other countries. We were forced to eliminate GDP from this regression because it is collinear with each separate nation: One cannot examine the effect of living in South Korea, for example, apart from the level of economic development in that country. Only when countries are grouped conceptually as above, can one separate economic development from culture. Nonetheless, in the model containing four Asian-nation dummy variables, excluding GDP, living in each of the Asian nations was associated negatively with the sense of control. All relationships were highly significant ($p < .001$, two-tailed test). (Analysis available on request.)

These results show that Asian ethnicity is associated with comparatively low levels of personal control, both domestically and internationally. The relatively collectivist culture

Table 1. World Values Survey and Domestic Survey Means and Standard Deviations, by Asian and Non-Asian Ethnicity

	World Values Survey		Domestic Survey	
	Asians Means (Standard Deviations)	Non-Asians Means (Standard Deviations)	Asians Means (Standard Deviations)	Non-Asians Means (Standard Deviations)
Psychological Constructs				
Sense of control	5.61	6.74	.52	.68
	(2.37)	(2.33)	(.51)	(.50)
Psychological distress	4.62	3.67		
	(1.78)	(2.02)		
Depression			.71	.91
			(1.01)	(1.25)
Anxiety			1.57	1.97
			(1.82)	(2.04)
Socioeconomic Status				
Household income	4.06	4.68	42.54	38.79
	(2.51)	(2.33)	(41.70)	(40.55)
Education	5.96	6.13	15.10	13.36
	(2.73)	(2.98)	(2.57)	(2.59)
Employed	.57	.61	.72	.61
	(.50)	(.49)	(.45)	(.48)
Household Status				
# of children	1.95	.96	.97	.71
	(1.53)	(1.17)	(1.30)	(1.09)
Married	.83	.65	.56	.56
	(.38)	(.48)	(.50)	(.50)
Sociodemographics and National Controls				
Gross domestic product	9.05	12.24		
	(8.27)	(5.90)		
Female	.58	.51	.51	.59
	(.49)	(.50)	(.50)	(.49)
Age	4.36	4.24	36.75	47.36
	(1.44)	(1.68)	(14.43)	(18.17)

Note: All differences between Asians and non-Asians are significant at $p < .05$, two-tailed test, except for the proportion married in the domestic survey.

that emphasizes selfless subordination to family and community appears to decrease personal autonomy, thereby lowering levels of perceived control. This finding supports the first hypothesis.

Next we explore whether the sense of control has less of a negative effect on distress for Asians than for others. Table 4 displays regression results for the prediction of depression in the United States. Equation 1 shows the effect of race/ethnicity on depression, adjusting for socioeconomic status, household status, and sociodemographics; in Equation 2, the sense of control is added; the interaction of Asian ethnicity with the sense of control is added in Equation 3. The interaction of Asian ethnicity with sense of control is significant and indicates that the negative effect of personal control on distress is much weaker for Asian Americans than for whites. In fact, being Asian offsets the negative effect of personal control on depression (.471, compared with -.430). For Asians, the relationship between sense of control and depression is near zero and positive (.041); it is not significantly different from zero. This finding contrasts strongly with the significant negative relationship between personal control and depression among U.S. whites and blacks (-.430).

The upper panel of Figure 1 graphs the effect of personal control on depression for Asians and non-Asians in the United States. It illustrates the near-zero relationship

Table 2. Regression of Sense of Control on Ethnicity/Race, Socioeconomic Status, Household Status, and Sociodemographics: Domestic Survey

	b (S.E.)	Beta
Ethnicity/Race		
Asian[a]	-.312*** (.044)	-.079
Black[a]	-.090*** (.020)	-.052
Socioeconomic Status		
Household income[b]	.001*** (.000)	.083
Education	.049*** (.002)	.251
Employed	.068*** (.013)	.065
Household Status		
# of children	.001 (.006)	.003
Married	.039*** (.012)	.038
Sociodemographics		
Age	-.004*** (.000)	-.141
Female	-.014 (.012)	-.013
Intercept	.131	
R^2	.150	

Notes:
b = unstandardized coefficient; S.E. = standard error of *b*; beta = standardized coefficient
[a]Compared with white
[b]In thousands
+ $p < .10$, * $p < .05$, ** $p < .01$, *** $p < .001$ (two-tailed test)

Table 3. Regression of Sense of Control on National Characteristics, Socioeconomic Status, Household Status, and Sociodemographics: World Values Survey

	b (S.E.)	Beta
National Characteristics		
Asian[a]	-.995*** (.039)	-.125
Gross domestic product[b]	.020*** (.002)	.057
Socioeconomic Status		
Household income	.049*** (.005)	.049
Education	.012** (.004)	.015
Employed	.189*** (.026)	.039
Household Status		
# of children	-.007 (.011)	-.003
Married	-.119*** (.028)	-.024
Sociodemographics		
Age[c]	-.075*** (.008)	-.053
Female	-.136*** (.024)	-.029
Intercept	6.561	
R^2	.037	

Notes:
b = unstandardized coefficient; S.E. = standard error of *b*; beta = standardized coefficient
[a]Compared with non-Asian
[b]In thousands
[c]In 10-year categories
+ $p < .10$, * $p < .05$, ** $p < .01$, *** $p < .001$ (two-tailed test)

between sense of control and depression among Asians, in contrast to the strong negative relationship among other groups. The graph also shows that at the mean levels of personal control for Asians (.52), Asians have a lower predicted level of depression than others. Although they have lower levels of personal control than whites, Asians' levels of depression are also somewhat lower.

Table 5 shows the same model in regard to anxiety. Equation 3 includes the interaction of Asian ethnicity and personal control. This interaction is significant and shows that the negative relationship between control and anxiety is much smaller for Asians than for non-Asians. In fact, the coefficient of .757 for the interaction term is larger than the negative direct effect of control on anxiety (-.503), an indication that for Asians, the relationship between sense of control and anxiety is somewhat positive (.254).

The lower panel of Figure 1 graphs the conditional effect of personal control on anxiety among Asians and non-Asians in the United States. The relationship between the sense of control and anxiety is positive but small for Asians, in contrast to the strong negative relationship between the sense of control and anxiety among U.S. whites and blacks (-.503).

Despite lower levels of personal control, Asian ethnicity is associated with lower average levels of anxiety, as seen in all models in Table 5. Figure 1 shows that at Asian mean levels of control (.52), Asians have lower predicted levels of anxiety than others. These results are similar to those for depression.

Table 4. Regression of Depression on Ethnicity/Race, Sense of Control, Socioeconomic Status, Household Status, and Sociodemographics: Domestic Survey

	Equation 1		Equation 2		Equation 3	
	b (S.E.)	Beta	*b* (S.E.)	Beta	*b* (S.E.)	Beta
Ethnicity/Race						
Asian[a]	-.077 (.113)	-.008	-.208+ (.111)	-.021	-.459** (.160)	-.047
Black[a]	.146** (.050)	.034	.109* (.050)	.025	.108* (.050)	.025
Sense of Control						
Control			-.421*** (.030)	-.171	-.430*** (.030)	-.174
Asian x control					.471* (.215)	.036
Socioeconomic Status						
Household income[b]	-.001*** (.000)	-.044	-.000* (.000)	-.030	-.000* (.000)	-.030
Education	-.073*** (.006)	-.151	-.052*** (.006)	-.108	-.052*** (.006)	-.108
Employed	-.275*** (.034)	-.107	-.247*** (.034)	-.095	-.246*** (.034)	-.095
Household Status						
# of children	.023+ (.014)	.021	.024+ (.014)	.021	.023+ (.014)	.021
Married	-.358*** (.031)	-.143	-.342*** (.030)	-.136	-.341*** (.030)	-.136
Sociodemographics						
Age	-.006*** (.000)	-.083	-.008*** (.000)	-.107	-.008*** (.000)	-.108
Female	.177*** (.030)	.070	.171*** (.029)	.068	.170*** (.029)	.067
Intercept	2.446		2.505		2.505	
R^2	.085		.110		.111	

Notes:
b = unstandardized coefficient; S.E. = standard error of *b*; Beta = standardized coefficient
[a]Compared with white
[b]In thousands
+ $p < .10$, * $p < .05$, ** $p < .01$, *** $p < .001$ (two- tailed test)

Next we examine whether a low sense of control has a less distressing effect for persons living in an Asian nation than elsewhere. Table 6 shows the regression predicting psychological distress in the World Values Survey. Equation 1 includes the dummy variable for living in an Asian nation, adjusting for GDP and for individual socioeconomic status, household status, and sociodemographics. Equation 2 adds sense of control; Equation 3 adds the interaction term. The interaction of Asian ethnicity with control is significant, and indicates that the negative relationship between sense of control and psychological distress is smaller for Asians than for non-Asians.

Figure 2 graphs the conditional effect. For non-Asians, each unit increase in the sense of control decreases distress by .198, whereas for Asians it decreases distress by .133. Although the differences in these slopes are far smaller than those for the United States, they still differ significantly ($p < .001$). For individuals in Asian countries, the sense of control has a weaker relationship with psychological distress than for those in non-Asian countries, although it is still negative. The conditional effect of per-

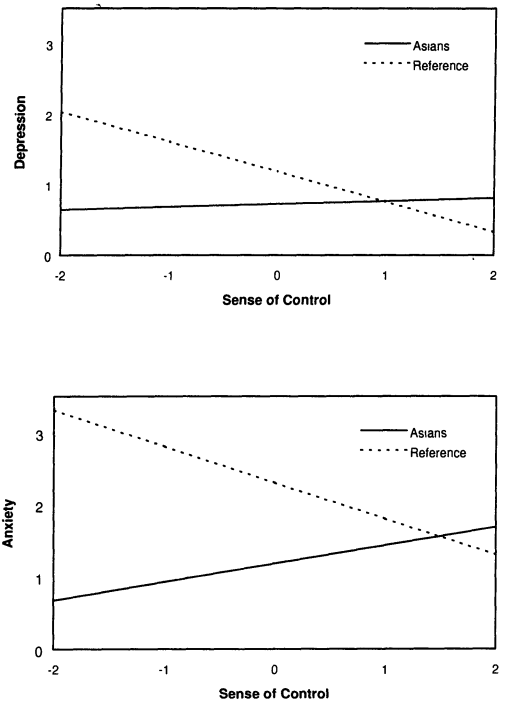

Figure 1. Relationship between the Sense of Control and Depression and Anxiety, for Asians and Non-Asians: Domestic Survey

sonal control on distress is found among both Asian Americans and Asians in Asia. This finding supports our second hypothesis.

In contrast to Asians in the United States, who have lower levels of anxiety and depression than American whites, Asians in Asia have higher levels of distress than individuals in non-Asian countries. Even though a low level of personal control is less distressing for Asians than for non-Asians, Asians have higher levels of distress at all levels of personal control (see Figure 2). What can explain these differences? It is likely that Asians in the United States have characteristics that make them different from Asians in their home countries. Asians who choose to emigrate may have a greater sense of personal control and more motivation for achievement than those who remain, and thus higher levels of psychological well-being. For example, Table 1 shows that Asians in the United States have more years of education and higher household incomes than non-Asians, and they are more likely to be employed. Asians in Asia have lower average levels of education and income than the rest of the world, and they are less likely to be employed for pay. Although all models adjust for individual socioeconomic status, they do not adjust for psychological differences in motivation between immigrants and their families and Asians in their home countries.

Recall that we combined four domestic data sets with comparable measures in order to increase the total number of Asian Americans for analysis. Only one of these data sets contains any information about immigration. Given the importance of whether Asian ethnicity in the United States reflects culture or immigration, we next examine the effect of Asian ethnicity on the sense of personal control, as explored in the 1995 Aging, Status, and Sense of Control Survey (ASOC). In that survey, respondents were asked, "Were you born in the U.S.?" Those who answered "no" were coded 1 for being immigrants. Respondents also were asked "Is English your native language?" (if this question was unclear to the respondent, it was rephrased "Is English the first language you spoke as a child?"). Those who answered "yes" were coded 1. In Table 7 we replicate the analysis in Table 2, but we only use ASOC, and we add immigrant status and English as one's native language to learn whether the effect of being Asian in the United States is due in fact to being an immigrant, to speaking English as one's second language, or both. Adjustment for these statuses in Equation 2 reduces the coefficient associated with Asian ethnicity, but the relationship remains significant. Levels of personal control are lower among immigrants and those for whom English is not their native language than among those in the second generation and those for whom English is the native language. Even though immigrants may have higher levels of control than those who remain in their home countries, they have lower levels of personal control than do nonimmigrants in the United States. Nonetheless, this fact does not explain the

Table 5. Regression of Anxiety on Ethnicity/Race, Sense of Control, Socioeconomic Status, Household Status, and Sociodemographics: Domestic Survey

	Equation 1		Equation 2		Equation 3	
	b (S.E.)	Beta	*b* (S.E.)	Beta	*b* (S.E.)	Beta
Ethnicity/Race						
Asian[a]	-.570** (.187)	-.036	-.722*** (.186)	-.045	-1.126*** (.267)	-.070
Black[a]	-.129 (.083)	-.018	-.171* (.083)	-.024	-.173* (.083)	-.025
Sense of Control						
Control			-.489*** (.050)	-.121	-.503*** (.051)	-.124
Asian x control					.757* (.358)	.035
Socioeconomic Status						
Household income[b]	-.003*** (.000)	-.055	-.002*** (.000)	-.045	-.002*** (.000)	-.045
Education	-.059*** (.010)	-.074	-.035*** (.010)	-.044	-.035*** (.010)	-.044
Employed	-.176** (.057)	-.042	-.142** (.056)	-.034	-.142** (.056)	-.034
Household Status						
# of children	.070** (.024)	.038	.070** (.023)	.039	.069** (.023)	.038
Married	-.282*** (.051)	-.069	-.263*** (.050)	-.064	-.261*** (.050)	-.063
Sociodemographics						
Age	-.025*** (.002)	-.213	-.027*** (.002)	-.230	-.027*** (.002)	-.230
Female	.304*** (.049)	.073	.298*** (.048)	.072	.297*** (.049)	.072
Intercept	4.075		4.139		4.146	
R^2	.064		.076		.077	

Notes:
b = unstandardized coefficient; S.E. = standard error of *b*; beta = standardized coefficient
[a]Compared with white
[b]In thousands
+ $p < .10$, * $p < .05$, ** $p < .01$, *** $p < .001$ (two- tailed test)

significant negative effect of Asian ethnicity on the sense of control in the United States.[3]

Other results deserve mention. In the United States, black Americans, like Asian Americans, have a lower sense of personal control than whites (see Table 2). Unlike Asians, however, but like whites, the sense of personal control reduces distress for African Americans. We found no significant interaction between personal control and being black on either depression or anxiety. When we adjust for the sense of personal control, blacks have higher levels of depression than whites, but lower levels of anxiety (see Tables 4 and 5). All of these effects include adjustments for socioeconomic and household status and sociodemographic characteristics.

In the United States and in the rest of the

[3] All participants in the domestic surveys speak English. Persons whose native language is English report higher levels of personal control than others; thus it is likely than non-English speaking immigrants, not represented here, have even lower levels of personal control. Many Asian Americans are first-generation immigrants; this implies that the low sense of personal control among Asians in the United States, which we find in our data, would be (if anything) even lower if non-English-speaking immigrants had been interviewed.

Table 6. Regression of Psychological Distress on National Characteristics, Sense of Control, Socioeconomic Status, Household Status and Sociodemographics: World Values Survey

	Equation 1		Equation 2		Equation 3	
	b (S.E.)	Beta	*b* (S.E.)	Beta	*b* (S.E.)	Beta
National Characteristics						
Asian[a]	.806*** (.034)	.117	.615*** (.033)	.089	.245** (.083)	.036
Gross domestic product[b]	-.054*** (.002)	.169	-.050*** (.002)	-.157	-.051*** (.002)	-.156
Sense of Control						
Control			-.192*** (.004)	-.221	-.198*** (.004)	-.229
Asian x control					.065*** (.013)	.058
Socioeconomic Status						
Household income	-.056*** (.004)	-.065	-.046*** (.004)	-.054	-.046*** (.004)	-.055
Education	-.033*** (.004)	-.048	-.031*** (.003)	-.045	-.031*** (.003)	-.045
Employed	-.263*** (.022)	-.063	-.227*** (.021)	-.055	-.226*** (.021)	-.054
Household Status						
# of children	.027** (.009)	.016	.026** (.009)	.016	.026** (.009)	.016
Married	-.374*** (.023)	-.087	-.397*** (.023)	-.092	-.397*** (.023)	-.092
Sociodemographics						
Age[c]	.044*** (.006)	.036	.029*** (.006)	.024	.030*** (.006)	.024
Female	.154*** (.020)	.038	.128*** (.020)	.031	.128*** (.019)	.031
Intercept	4.835		6.110		6.150	
R^2	.084		.130		.131	

Notes:
b = unstandardized coefficient; S.E. = standard error of *b*; beta = standardized coefficient
[a]Compared with non-Asian
[b]In thousands
[c]In 10-year categories
+ $p < .10$, * $p < .05$, ** $p < .01$, *** $p < .001$ (two- tailed test)

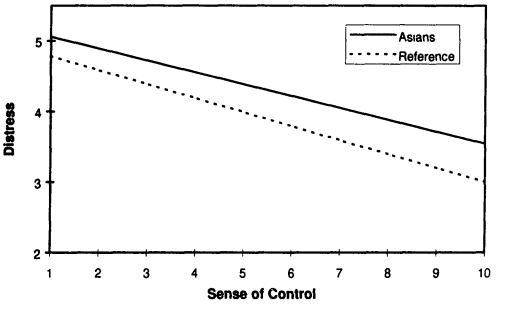

Figure 2. Relationship between the Sense of Control and Distress, for Asians and Non-Asians: World Values Survey

world, people who have more years of education, higher household incomes, and are employed, report significantly more perceived control. In the United States, education has the largest effect of any aspect of socioeconomic status, even when we adjust for income. In the World Values Survey, household income has the largest effect, followed by employment and education. In both the United States and elsewhere, women and older persons report less perceived control over their lives than do men and younger people. Household status, however, does not have consistent effects: In the United States, married persons report significantly more

Table 7. Regression of Sense of Control on Ethnicity/Race, Assimilation Status, Socioeconomic Status, Household Status, and Sociodemographics: ASOC Survey

	Equation 1		Equation 2	
	b (S.E.)	Beta	*b* (S.E.)	Beta
Ethnicity/Race				
Asian[a]	-.396*** (.075)	-.097	-.189* (.084)	-.046
Black[a]	-.103*** (.036)	-.053	-.099** (.036)	-.051
Assimilation Status				
Immigrant	-.126* (.051)	-.061		
English speaker	.130* (.054)	.060		
Socioeconomic Status				
Household income[b]	.001*** (.000)	.064	.001*** (.000)	.066
Education	.051*** (.004)	.261	.051*** (.004)	.262
Employed	.078*** (.022)	.075	.078*** (.022)	.075
Household Status				
# of children	-.013 (.010)	.027	-.012 (.010)	-.024
Married	.072*** (.020)	.069	.071*** (.020)	.068
Sociodemographics				
Age	-.004*** (.000)	-.135	-.004*** (.000)	-.135
Female	-.030 (.020)	-.028	-.027 (.019)	-.026
Intercept	.067		-.051	
R^2	.150		.159	

Notes:
b = unstandardized coefficient; S.E. = standard error of *b*; beta = standardized coefficient
[a]Compared with white
[b]In thousands
$+ p < .10$, $* p < .05$, $** p < .01$, $*** p < .001$ (two-tailed test)

perceived control, but elsewhere in the world they report less.

The higher a country's economic development, the higher its residents' levels of perceived control. Among respondents in the 33 countries in the World Values Survey, individuals in the United States have the second highest average levels of personal control. On a scale of 1 to 10, in which 10 indicates high perceived control, residents of six countries score above 7: Finland (7.65), the United States (7.59), Canada (7.56), Sweden (7.48), Norway (7.17), and Denmark (7.02). All of these countries are North American or Scandinavian. High perceived control among residents of these countries could be due to culture or to economic development.

DISCUSSION

We began with two major hypotheses: Asians have lower levels of personal control than non-Asians, and the negative relationship between personal control and psychological distress is less for Asians than for non-Asians. Both hypotheses were supported. Asian Americans in the United States report lower average levels of perceived control than others; and Asians in their home countries report lower average levels than people in other countries. The relatively collectivist Asian culture emphasizes subordination to the whole and places many demands on family members, thus decreasing Asian autonomy. The more individualistic cultures, such as those in the West, encourage individuals to pursue personal goals; this cultural trait increases Westerners' autonomy. The perception that one can influence good and bad outcomes in life is significantly weaker among Asians than among others. The negative relationship between the sense of personal control and psychological distress, however, is less for Asians in the United States and in Asia than for others. In both data sets, the negative relationship between the sense of control and psychological distress is weaker for Asians than for non-Asians. For example, white Americans with a high sense of personal control have much lower levels of depression and anxiety than white Americans who believe that important outcomes in their lives are outside of their control. The same is not true for Asian Americans.

In individualistic cultures, personal development and the attainment of individual goals are valued. Thus the perception that one can achieve personal goals is likely to be important to psychological well-being. In contrast, rigid adherence to the dictates of tradition is encouraged in Asian collectivist cultures. Although this trait may decrease perceived autonomy, it does not appear, in turn, to strongly affect psychological distress.

In part, the reason may be simply a matter of values: If individual autonomy is a Western value, it may have less effect on psychological well-being in non-Western cultures.

According to the theory of personal control, however, control's benefit lies in effectiveness, not in normativeness (Mirowsky and Ross 1986, 1989). The sense of not being in control of the good or bad outcomes in one's life can diminish the will and motivation to solve problems. Belief in the efficacy of external rather than personal forces makes active attempts to solve problems seem pointless. The result is less motivation and less persistence in coping, and thus less success in solving problems and adapting. According to Mirowsky and Ross, people with little perceived control over their lives have a reactive, passive orientation, whereas those with high perceived control have a proactive outlook. Instrumental persons are likely to accumulate resources and to develop skills and habits that prevent avoidable problems and reduce the impact of unavoidable problems.

If the benefits of perceived control lie in effectiveness, why does it have less effect on Asians' well-being? We think that white Americans receive few trade-offs to the positive effects of high personal control, but that the effects are both positive and negative for Asians. Although the sense of control may be effective, persons of Asian ethnicity may be negatively sanctioned for pursuing individual self-interests. Asians are more likely than whites to be rewarded for fulfilling their obligations to community and family; in addition, individuals who pursue individual autonomy and their own self-interests are more likely to be viewed as violating norms. Thus, high levels of personal control could involve trade-offs for Asians' psychological well-being, producing a null or a smaller effect.

In the United States, perceived control has a near-zero effect on Asian Americans' depression levels but slightly increases their anxiety. Effective instrumentalism and violation of norms may balance out in their effects on depression, resulting in little effect of personal control, but norm violation may increase anxiety so much as to tip the balance toward a positive effect of personal control on anxiety. It is unclear why this is so in the United States but not in Asia. On the one hand, a proactive orientation may be especially beneficial to psychological well-being in developing Asian nations, where it could place an individual at a great advantage in relation to others. On the other hand, norm violation may be more pronounced in Asia than in the United States, where individualistic Western values dilute collectivist values.

The theory that a strong sense of personal control increases the likelihood of personal achievement produces another apparent inconsistency in light of our findings that Asians have a relatively low sense of personal control. Asian Americans have higher average levels of education, employment, and household income than other Americans, despite their low levels of perceived control. If individual efforts seem useless, why would someone study or work hard, and ultimately succeed? Possibly the individual motivation that drives white Americans is not the governing force among Asians. Their drive to succeed may be shaped by a desire to do well for the family. Failure to do well in school, to obtain a good job, and so on, may bring more shame to one's family if one is Asian than if one is a white American of European descent. Thus, collectivist motivations could govern status attainment.

If Asians have a lower sense of control than others because they are more collectivist in orientation, can we find the same pattern in other cultural groups that are more collectivist than white Americans? Mirowsky and Ross (1984) propose that persons of Mexican ethnic identity in both Mexico and the United States have more of an orientation to family and pseudofamily than do Anglos. The latter place less emphasis on the mutual obligations of family and friends than on the individual's responsibility for his or her own life. Persons of Mexican heritage score lower than Anglos on a belief in internal control, even after lower education, income, and status are taken into account. This finding supports the theory that a collectivist cultural orientation shapes individuals' perceptions of low personal control. On the other hand, the negative association between perceived con-

trol and distress does not differ significantly for Anglos, Mexicans and Mexican Americans (Mirowsky and Ross 1984; Wheaton 1985). The differences could be due to greater cultural similarity between two European cultures than between European and Asian cultures.

APPENDIX

Measurements

Mirowsky/Ross Sense of Control Index, Domestic Survey

Claiming Control over Good Outcomes:

(1) "I am responsible for my own successes."

(2) "I can do just about anything I really set my mind to."

Claiming Control over Bad Outcomes:

(3) "My misfortunes are the result of mistakes I have made."

(4) "I am responsible for my failures."

Denying Control over Good Outcomes:

(5) "The really good things that happen to me are mostly luck."

(6) "There's no sense planning a lot -- if something good is going to happen it will."

Denying Control over Bad Outcomes:

(7) "Most of my problems are due to bad breaks."

(8) "I have little control over the bad things that happen to me."

Responses to questions on control (1 through 4) are coded -2 = strongly disagree, -1 = disagree, 0 = neutral, 1 = agree, 2 = strongly agree. Responses to questions on lack of control (5 through 8) are coded in reverse. We created a means score sense-of-control index from these questions, coded from low sense of control (-2) to high sense of control (2).

Bradburn Affect Balance Scale, World Values Survey

"We are interested in the way people are feeling these days. During the last few weeks, did you ever feel..."

Positive Affect:

(1) "particularly excited or interested in something?"

(2) "proud because someone complimented you on something?"

(3) "pleased about having accomplished something?"

(4) "on top of the world/feeling that life is wonderful?"

(5) "that things were going your way?"

Negative Affect:

(6) "so restless you couldn't sit long in a chair?"

(7) "very lonely or remote from people?"

(8) "bored?"

(9) "depressed or very unhappy?"

(10) "upset because somebody criticized you?"

Responses to the negative affect items are coded no (0)/yes (1). Responses to the positive affect items are coded in reverse. The items are summed into a scale in which high scores indicate distress.

Modified Center for Epidemiological Studies' Depression Scale (CESDm), Domestic Survey

"Now I am going to read a list of different feelings that people sometimes have. After each one I would like you to tell me how many times you have felt this way during the past 7 days. How many different days have you..."

Malaise:

(1) "had trouble getting to sleep or staying asleep?"

(2) "felt that everything was an effort?"

(3) "felt you just couldn't get going?"

(4) "had trouble keeping your mind on what you were doing?"

Mood:

(5) "felt sad?"

(6) "felt lonely?"

(7) "felt you couldn't shake the blues?"

Responses are coded from 0 to 7, and the scale is coded as the mean response.

Mirowsky/Ross Anxiety Scale, Domestic Survey

1) "Worried a lot about the little things?"

2) "Felt tense or anxious?"

3) "Felt restless?"

Questions are phrased in the same way as

for depression. Responses are coded from 0 to 7, and the scale is coded as the mean response. One of the surveys, the Illinois Survey of Well-Being (ISW), included only the first two indicators of anxiety; we use the three indicators where available, and two in the ISW.

REFERENCES

Aiken, Leona S. and Stephen G. West. 1991. *Multiple Regression: Testing and Interpreting Interactions.* Newbury Park, CA: Sage.

Aldwin, Carolyn and Ellen Greenberger. 1987. "Cultural Differences in the Predictors of Depression." *American Journal of Psychology* 15:789-813.

Al-Zahrani, Saad Said and Stan Kaplowitz. 1993. "Attributional Biases in Individualistic and Collectivistic Cultures: A Comparison of Americans with Saudis." *Social Psychology Quarterly* 56:223-33.

Bird, Chloe E. and Catherine Ross. 1993. "Houseworkers and Paid Workers: Qualities of the Work and Effects on Personal Control." *Journal of Marriage and the Family* 55:913-25.

Bond, Michael Harris. 1983. "A Proposal for Cross-Cultural Studies of Attribution." Pp. 144-157 in *Attribution Theory: Social and Functional Extensions,* edited by M. Hewstone. Oxford: Basil Blackwell.

—— 1988. "Introduction." Pp. 9-13 in *The Cross Cultural Challenge to Social Psychology,* edited by Michael Harris Bond. Hong Kong: Oxford University Press.

Bond, Michael Harris and K.K. Hwang. 1986. "The Social Psychology of the Chinese People." Pp. 213-66 in *The Psychology of the Chinese People,* edited by Michael Harris Bond. Hong Kong: Oxford University Press.

Coleman, James S., Ernest O. Campbell, Carol V. Hobson, James M. McPartland, Alexander M. Mood, Frederick D. Weinfield, and Robert L. York. 1966. *Equality of Educational Opportunity.* Washington, DC.: Government Printing Office.

Crittenden, Kathleen S. and Corazon B. Lamug. 1988. "Causal Attribution and Depression: A Friendly Refinement Based on Philippine Data." *Journal of Cross-Cultural Psychology* 19:216-31.

Crittenden, Kathleen S. 1991. "Asian Self-Effacement or Feminine Modesty? Attributional Patterns of Women University Students in Taiwan." *Gender and Society* 5:98-117.

Downey, Geraldine and Phyllis Moen. 1987. "Personal Efficacy, Income and Family Transitions: A Longitudinal Study of Women Heading Households." *Journal of Health and Social Behavior* 28:320-33.

Espiritu, Yen Le. 1992. *Asian American Panethnicity: Bridging Institutions and Identities.* Philadelphia: Temple University Press.

Gecas, Victor. 1989. "The Social Psychology of Self-Efficacy." *Annual Review of Sociology* 15:291-316.

Guagnano, Greg, Curt Acredolo, Glenn Hawkes, Steve Ellyson, and Nancy White. 1986. "Locus of Control: Demographic Factors and Their Interactions." *Journal of Social Behavior and Personality* 1:365-80.

Hofstede, Geert. 1980. *Culture's Consequences: International Differences in Work Related Values.* Beverly Hills: Sage.

Hogan, Robert T. and Nicholas P. Emler. 1978. "The Biases in Contemporary Social Psychology." *Social Research* 45:478-534.

Hui, Harry C. 1988. "Measurement of Individualism-Collectivism." *Journal of Research in Personality* 22:17-36.

Hui, Harry C. and Harry Triandis. 1986. "Individualism-Collectivism: A Study of Cross-Cultural Research." *Journal of Cross-Cultural Psychology* 17:225-48.

Hsu, Frances L.K. 1981. *Americans and Chinese: Passage to Differences.* Honolulu: University of Hawaii Press.

Inkeles, Alex and David Smith. 1974. *Becoming Modern: Individual Change in Six Developing Countries.* Cambridge, MA: Harvard University Press.

Kagitcibasi, Cigdem and J.W. Berry. 1989. "Cross-Cultural Psychology: Current Research and Trends." *Annual Review of Psychology* 40:493-531.

Kobasa, Suzanne E., Salvatore R. Maddi, and Sheila Courington. 1981. "Personality and Constitution as Mediators in the Stress-Illness Relationship." *Journal of Health and Social Behavior* 22:368-78.

Kohn, Melvin and Carmi Schooler. 1982. "Job Conditions and Personality: A Longitudinal Assessment of Their Reciprocal Effects." *American Journal of Sociology* 87:1257-86.

Krause, Neal and Sheldon Stryker. 1984. "Stress and Well-Being: The Buffering Role of Locus of Control Beliefs." *Social Science and Medicine* 18:783-90.

Lao, Rosina C. 1978. "Levenson's IPC Scale: A Comparison of Chinese and American Students." *Journal of Cross-Cultural Psychology* 9:113-22.

Liang, Belle and G. Anne Bogat 1994. "Culture, Control and Coping: New Perspectives on

Social Support." *American Journal of Community Psychology* 22:123-47.

Lincoln, James R. and Arne L. Kalleberg. 1990. *Culture, Control, and Commitment: A Study of Work Organization and Work Attitudes in the United States and Japan.* Cambridge, UK: Cambridge University Press.

Markus, Hazel Rose and Shinobu Kitayama. 1991. "Culture and the Self: Implications for Cognition, Emotion, and Motivation." *Psychological Review* 2:224-53.

Miller-Loessi, Karen. 1995. "Comparative Social Psychology: Cross-Cultural and Cross-National." Pp. 397-420 in *Sociological Perspectives on Social Psychology,* edited by Karen S. Cook, Gary Alan Fine, and James S. House. London: Allyn and Bacon.

Mirowsky, John and Catherine E. Ross. 1984. "Mexican Culture and Its Emotional Contradictions." *Journal of Health and Social Behavior* 25:2-13.

——. 1986. "Social Patterns of Distress." Pp. 23-45 in *Annual Review of Sociology,* edited by Ralph H. Turner and James F. Short. Palo Alto: Annual Reviews Inc.

——. 1989. *Social Causes of Psychological Distress.* New York: Aldine de Gruyter.

——. 1990. "Control or Defense? Depression and the Sense of Control over Good and Bad Outcomes." *Journal of Health and Social Behavior* 31:71-86.

——. 1991. "Eliminating Defense and Agreement Bias from Measures of the Sense of Control: A 2 x 2 Index." *Social Psychology Quarterly* 54:127-45.

——. 1992. "Age and Depression." *Journal of Health and Social Behavior* 33:187-205.

——. 1995. "Sex Differences in Distress: Real or Artifact?" *American Sociological Review* 60:449-68.

——. 1996. "Fundamental Analysis in Research on Well-Being: Distress and the Sense of Control." *The Gerontologist* 36:584-94.

Pearlin, Leonard I., Morton A. Leiberman, Elizabeth G. Menaghan, and Joseph T. Mullan. 1981. "The Stress Process." *Journal of Health and Social Behavior* 22:337-56.

Ross, Catherine E. and Sung Joon Jang. 1996. "Community Disorder, Fear and Mistrust: The Buffering Role of Social Ties among Neighbors." Presented at the annual meetings of the American Society of Criminology, Chicago.

Ross, Catherine E. and John Mirowsky. 1984. "Components of Depressed Mood in Married Men and Women: The Center for Epidemiologic Studies' Depression Scale." *American Journal of Epidemiology* 119:997-1004.

——. 1992. "Households, Employment, and the Sense of Control." *Social Psychology Quarterly* 55:217-35.

Rotter, Julian B. 1966. "Generalized Expectancies for Internal vs. External Control of Reinforcements." *Psychological Monographs* 80:1-28.

Schwartz, Shalom H. 1995. "Cultural Dimensions of Values: Toward an Understanding of National Differences." Pp. 40-54 in *Individualism and Collectivism: Theory and Methods,* edited by V. Kim and H.C. Triandis. Newbury Park, CA: Sage.

Seeman, Melvin. 1959. "On the Meaning of Alienation." *American Sociological Review* 24:783-91.

——. 1983. "Alienation Motifs in Contemporary Theorizing: The Hidden Continuity of Classic Themes." *Social Psychology Quarterly* 46:171-84.

Triandis, Harry C. 1988. "Cross-Cultural Contributions to Theory in Social Psychology." Pp. 122-40 in *The Cross-Cultural Challenge to Social Psychology,* edited by Michael Harris Bond. Newbury Park, CA: Sage.

——. 1989. "Collectivism vs. Individualism: A Reconceptualization of a Basic Construct in Cross-Cultural Social Psychology." Pp. 60-95 in *Cross Cultural Studies of Personality, Attitudes and Cognition,* edited by G.K. Verma and C. Bagley. London: Macmillan.

United Nations Development Program. 1994. *Human Development Report.* New York: Oxford University Press.

Waterman, Alan. 1984. *The Psychology of Individualism.* New York: Praeger.

Wheaton, Blair. 1980. "The Sociogenesis of Psychological Disorder: An Attributional Theory." *Journal of Health and Social Behavior* 21:100-24.

——. 1983. "Stress, Personal Coping Resources, and Psychiatric Symptoms: An Investigation of Interactive Models." *Journal of Health and Social Behavior* 24:208-29.

——. 1985. "Personal Resources and Mental Health: Can There Be Too Much of a Good Thing?" Pp. 139-84 in *Research in Community and Mental Health,* edited by James R. Greenley. Greenwich, Conn.: JAI.

Zea, Maria Cecilia, S. Lisbeth Jarama, and Fernanda Trotta Bianchi. 1995. "Social Support and Psychosocial Competence: Explaining the Adaptation to College of Ethnically Diverse Students." *American Journal of Community Psychology* 23:19-27.

Jaya Sastry *was a PhD. candidate in sociology at Duke University. He received his master's degree from the Ohio State University in 1997. Jaya died in February 1998, at the age of 26. He was a promising, insightful young scholar. Jaya's intelligence, his commitment to scholarship and to research, and his ability to generate ideas made him a pleasure to work with. His master's thesis examined the effect of macro-level economic development on individual sense of control in 33 countries. He studied ethnic, cultural, and national differences in mental and physical health. He published "Family 'Decline' and Child Well-Being: A Comparative Assessment" in the* Journal of Marriage and the Family *with Sharon Houseknecht (1996).*

Catherine E. Ross *is a professor of sociology at the Ohio State University. She studies the effects of work and family on men's and women's health, mental health, and sense of control versus powerlessness. She is principal investigator, with Chet Britt, on a grant from the National Institute of Mental Health, "Community, Crime and Health," which examines the ways in which neighborhood affects subjective well-being. She is co-principal investigator with John Mirowsky on a grant from the National Institute on Aging, "Aging, Status and the Sense of Control." Recent publications include "Economic and Interpersonal Work Rewards: Subjective Utilities of Men's and Women's Compensation" with John Mirowsky in* Social Forces *(1996), and "Education and the Subjective Quality of Life" with Marieke Van Willigen in the* Journal of Health and Social Behavior *(1997).*