LOCUS OF CONTROL, MOOD DISTURBANCE, AND SOCIAL DIFFICULTY DURING CROSS-CULTURAL TRANSITIONS

COLLEEN WARD and ANTONY KENNEDY

University of Canterbury, New Zealand

ABSTRACT. The study examined locus of control in conjunction with subject sex, extraversion, life changes, cultural distance, acculturation (cultural identity and cultural integration–separation), quality and quantity of contact with host nationals and co-nationals, and personal (marital) relationship satisfaction in the construction of predictive models of psychological and sociocultural adjustment during cross-cultural transitions. Eighty-four New Zealand adults resident in Singapore participated in the research. Results revealed that locus of control, personal relationship satisfaction, social difficulty, and host national contact predicted psychological distress (mood disturbance) in sojourners. These variables accounted for 32% of the variance in the regression analysis. In contrast, sociocultural adaptation, assessed by a measurement of social difficulty, was dependent upon length of residence in the host culture, cultural distance, cultural identity, and mood disturbance. Forty-two percent of the variance was explained by these factors. With respect to locus of control, an internal disposition predicted psychological well-being; there was no evidence to suggest that locus of control interacted with sociocultural competence, nor was there evidence to corroborate the hypothesis that an external locus of control may be adaptive in a non-Western cultural milieu.

The popular concept of locus of control (LOC) was originally proposed by Rotter (1966) in the context of social learning theory and with explicit reference to generalized expectancy of reward. More specifically, Rotter posited that conditioning of behavior is more powerful and effective if the individual believes that reinforcement is contingent on her or his own behavior as opposed to being dependent on unpredictable or uncontrollable factors. In contemporary theory and research, the locus of control construct has been transported from its behavioral origins and relocated within a cognitive framework in both personality and social psychology. Rotter's initial distinction between internal and external...
LOC, however, has been maintained. Internal locus of control refers to the perception of positive and negative events as consequences of one's own behavior and as being under one's personal control. In contrast, external locus of control refers to the perception that these events are not contingent on one's behavior, but are reliant upon factors such as fate, luck, or chance.

A burgeoning body of research has been undertaken relating locus of control as a personality dimension to various indices of psychological well-being including self-esteem, mood states, neurotic and psychosomatic disorders, and general life satisfaction. In broad terms, research findings have pointed to a link between external locus of control and psychological and emotional disturbances (Dyal, 1984). The notion that locus of control may predict psychological adjustment has also been investigated in studies of acculturation, where additional evidence has emerged to support the link between an external orientation and psychological distress. Kuo, Gray, and Lin (1976) found that an external locus of control was a more powerful predictor of psychiatric symptoms in Chinese immigrants to the United States than demographic, socioeconomic or life change variables. The association between externality and psychiatric symptomatology was replicated in Kuo and Tsai's (1986) more recent research with Asian immigrants on the American west coast. Dyal, Rybensky, and Somers (1988), who investigated locus of control and acculturative strain in Indo- and Euro-Canadian women, reported a relationship between external orientation, depression, and psychosomatic responses. Similarly, Hung (1974) established a link between external locus of control and anxiety in Taiwanese students in the United States. Moving away from specific psychological symptoms, Seipel's (1988) study in the United States revealed lower levels of life satisfaction in Korean immigrants with external locus of control, and Yum (1988) reported that external locus of control was weakly but significantly related to lower levels of intercultural communication and interaction (e.g., intercultural friendships, participation in ethnically mixed organizations, exposure to English media) in Koreans, Filipinos, and Japanese in Hawaii.

The findings on psychological and sociocultural adaptation and locus of control during cross-cultural transitions, however, have been neither consistent nor conclusive, and theoretical and methodological controversies pertaining to the complex pattern of research results may be critically examined in relation to three issues:

1. Selection of research samples (particularly the cultural origins and destinations of groups in transition).
2. Cross-cultural personality research on locus of control.
3. Possible ethnocentrism in conceptual and empirical approaches to locus of control and mental health.
On the first count, a major limitation of the studies cited above is that they have been confined to Asian immigrants and sojourners residing in North America. In essence, the direction of movement has been one from cultures where collectivism is valued and an external orientation is more commonly observed to those where individualism is the norm and an internal locus of control is considered a defining feature of mental health (Hofstede, 1984; Hui, 1982; Marsella, DeVos, & Hsu, 1985). In contrast, Cort and King's (1979) research with American travelers in Africa found no significant relationship between locus of control and emotional aspects of culture shock. The origins and destinations of sojourners and immigrants may be consequential for a number of reasons. In general terms, the person-situation interaction is important (Mischel, 1984), and many researchers in the area agree that personality as a mediator of cross-cultural adjustment should be viewed in a sociocultural context (e.g., Church, 1982; Draguns, 1979). Along more specific lines, Searle and Ward (1990) have advanced the proposition of cultural fit (i.e., original- and host-culture match) as a predictor of psychological adjustment during the transition process.

On the second count, cross-cultural personality research on locus of control calls into question the simplistic, straightforward association of external LOC with increased adjustment difficulties. Comparative studies have suggested that subjects from Asia and Africa have a more external orientation than subjects from Europe, North America, and parts of Australasia (Hui, 1982). Yet on the macro level there is no substantial evidence to support the contention that Asian and African groups have more adjustment difficulties during cross-cultural transitions. Indeed, there is some evidence to the contrary. For example, Hinkle's (1974) study of migrants to the United States revealed that Hungarians experienced more physical and psychological illnesses than did Chinese.

On the final count, a number of cross-cultural scholars have criticized locus of control research on conceptual grounds for its ethnocentric biases, noting that in some situations and cultural contexts an external LOC can have adaptive consequences. Dyal (1984) has suggested that in Asian countries with Karmic philosophies, a "giving up" problem-solving approach might diminish the stress of life changes. The same argument has been advanced by Ananth (1978), who postulated that the low incidence of depression in highly stressed Indian women may be a product of acceptance of their social situation and avoidance of attempts for change. Yang (1986) has noted the adaptive features of external attributions in Chinese societies and has interpreted the dynamics of this coping strategy in terms of the Buddhist concept of yuan. Partridge (1987), in her discussion of North Americans' adaptation to Japan, also described the adaptive features of a fatalistic orientation in situations where one has little primary control. These conceptual criticisms and the empirical research
cited above highlight the importance of the cultural origins and destinations of immigrants and sojourners in relationship to the adaptive consequences of locus of control.

One of the most interesting and robust pieces of research on locus of control and adaptation was recently reported by Moghaddam, Ditto, and Taylor (1990), who studied acculturative stress in Indian women in Montreal. Using the Symptom Distress Checklist and a median split technique, they divided subjects into high and low distress groups and compared them on a number of attitudinal and attributional variables. Analysis revealed that the high-distress group were less satisfied with their domestic and occupational roles, more egalitarian in their sex-role attitudes, more likely to perceive racial prejudice, and more likely to attribute both success and failure to personal characteristics than to fate. The study demonstrated a link between psychological distress and an internal locus of control and highlighted the importance of considering broader social factors in conjunction with LOC. One factor may be the responses of members of the host culture. For example, Moghaddam et al. (1990) emphasized the significance of the visible minority status of Indian women and the consequent ethnic prejudice. Another salient factor may be the level of sociocultural adaptation. For example, social psychological research on self-serving attributions indicates an ego-enhancing consequence of employing internal attributions for success and external attributions for failure (Fletcher & Ward, 1988; Ross & Fletcher, 1985). As such, an internal orientation may be more conducive to psychological adjustment if an individual is coping effectively with a cultural change, whereas the reverse may be true if the individual is not able to effectively negotiate the host environment. Although this was not explicitly investigated in Moghaddam and colleagues' study, locus of control may interact with sociocultural adaptation in predicting the psychological well-being of sojourners.

Research on psychological and sociocultural adjustment by Ward and colleagues provides an appropriate framework for the assessment of locus of control and psychological well-being in sojourning groups. They have argued that adjustment during cross-cultural transitions can be broadly divided into two categories:

1. Psychological adjustment, which refers to psychological and emotional well-being.

---

1In its original context, yuan functioned as a post hoc explanation for personal outcomes, with particular reference to the influence of fate. In its modern application, Yang (1986) has argued that yuan has two adaptive consequences: It fosters the maintenance of harmonious interpersonal relationships, and it protects individual psychological integrity by enabling "face saving."
2. Sociocultural adaptation, which refers to the ability to "fit in" or negotiate interactive aspects of the host culture.

In a series of studies with sojourners, research findings have indicated that psychological adjustment, as defined in terms of mood disturbance, is predicted by personality, life changes, and social support factors, whereas sociocultural adaptation, measured in terms of social difficulty, is dependent upon variables such as length of residence in the host culture, language ability, cultural knowledge, cultural identity, cultural distance, and interaction with hosts (Searle & Ward, 1990; Stone-Feinstein & Ward, 1990; Ward & Kennedy, in press a; Ward & Searle, 1991). This framework, then, allows for the examination of locus of control as a predictor of cross-cultural adjustment along with other social and psychological variables. It also permits the more specific investigation of locus of control and psychological well-being in individuals who are successful and unsuccessful at socially adapting to a new cultural environment.

The study presented here was undertaken with New Zealand adults resident in Singapore. As the majority of cross-cultural transition research by Ward and associates has been concentrated on foreign students, the general objective of the current study is to extend the investigation of psychological and sociocultural adaptation to a more diverse sample of sojourners. This includes the examination of clinical, cognitive, and behavioral variables in the construction of predictive models of psychological and sociocultural adjustment. In this context it is hypothesized that personality (extraversion and locus of control), life changes, social support (quality of relationships), and sociocultural adaptation will predict psychological adjustment of sojourners; in contrast, it is hypothesized that length of residence in host culture, cultural distance, quantity of contact with host nationals, acculturation (cultural identity and cultural integration-separation) and psychological adjustment will predict sociocultural adaptation.

The more specific goal of the research is to investigate the impact of locus of control on the psychological adjustment process. As this research is concentrated on Western sojourners in an Asian society, it allows for investigation of the effects of LOC when sojourners move from a culture where individualism is favored over collectivism and a more internal locus of control is the norm. Under these conditions, the theoretical and empirical literature suggests that a variety of outcomes might be expected:

Hofstede's (1984) research on work-related values confirms that New Zealanders value individualism to a greater extent than Singaporeans. The authors are unaware of published
1. A straightforward link between internality and psychological adjustment as demonstrated in the limited work with Asian immigrants in Western countries.

2. An association between externality and psychological adjustment, as suggested by theorists who emphasize the distinguishing features of the Asian cultural milieu.

3. An interaction between sociocultural adaptation and locus of control (psychological adjustment associated with internality when sociocultural adjustment is high and with externality when sociocultural adjustment is low), as evidenced by theory and research on self-serving attributions.

Therefore, specific hypotheses about the main and interactive effects of locus of control on psychological adjustment are not advanced; rather, this component of the research is considered exploratory.

METHOD

Subjects

Eighty-four New Zealanders resident in Singapore participated in this study. The majority of the subjects (84.5%) described themselves as Pakeha (white New Zealanders), 6% as Maori, and 9.5% others. Of the sample, 58.3% \((n = 49)\) were male and 41.7% \((n = 35)\) were female. Subjects ranged in age from 20 to 60 years with a mean of 37.8 years \((SD = 7.9)\). Ninety-three percent of the sample were married or in de facto (cohabiting) relationships; 6% were single, and 1% were divorced. Eighty percent of the sample had children. Most subjects (73%) were employed in Singapore, although 22% were unemployed, and 5% were students. Educational attainment ranged from secondary school certificates to postgraduate degrees: 45% with secondary school qualifications, studies that have reported direct comparisons between New Zealanders and Singaporeans on locus of control. There are studies, however, that have documented locus of control differences in comparisons between American and Chinese subjects, with the latter producing higher external scores (e.g., Hsieh, Skybut, & Lotsof, 1969; Lao, 1977). There are also cross-cultural comparisons that have demonstrated the highest level of externality in Swedish subjects, followed by Japanese, Australians, Americans, and New Zealanders (McGinnies, Nordholm, Ward, & Bhattacharji, 1974). In our own research, a sample of (predominantly Chinese) Singaporean and Malaysian students in New Zealand \((M = 25.76)\) produced higher external locus of control scores than this sample of New Zealanders in Singapore \((M = 22.95)\). \(F(1, 217) = 4.6, p < .03\) with sex covaried. Despite these trends, this research does not adequately test the "cultural fit" hypothesis, as there were no comparable host culture norms (from a nonstudent adult sample) upon which to base locus of control discrepancy scores.
26% with diplomas, 12% with university degrees, and 12% with postgraduate degrees/ diplomas.

Sixty-four percent of the subjects had previous experience residing overseas, and 3.6% had undertaken formal cross-cultural training before arrival in Singapore. Duration of residence in Singapore for this sample varied from 1 month to 11 years ($M = 25.2$ months, $SD = 27.6$).

**Materials**

An 11-page questionnaire was employed in this study. In addition to personal and demographic information, the questionnaire contained personality measurements of locus of control and extraversion, life changes (Social Readjustment Rating Questionnaire), cultural distance, acculturation (cultural identity and cultural integration–separation), quality and quantity of various interpersonal relationships, and psychological (Profile of Mood States, Zung Self-rating Depression scale) and sociocultural (Social Difficulty) adjustment.

**Personality.** Locus of control was assessed by a 15-item modification of Collins' (1974) adaptation of Rotter's (1966) Internal–External Locus of Control Scale (I–E LOC). The measurement contains attributional statements concerning the degree of perceived control one has over one's life; subjects rely on 5-point rating scales to indicate the extent of their agreement/disagreement with each statement. LOC scores range from 0 to 60, with higher scores indicative of a more external locus of control. This modification has proven reliable and valid in previous research with both New Zealand and Asian sojourners (Ward & Kennedy, in press b).

Extraversion was measured by the 21-item subscale of the Eysenck Personality Questionnaire (Eysenck & Eysenck, 1975). Scores range from 0 to 21, with higher scores representing greater levels of extraversion.

**Life Changes.** The Social Readjustment Rating Questionnaire (SRRQ), devised by Holmes and Rahe (1967) as a means of quantifying the amount of readjustive stress experienced due to life changes, was used in this study. The questionnaire contains a series of 41 life events (two events were dropped in this version), each assigned a value (in life change units) according to how much adjustment it requires. Subjects are asked to indicate which of the events have occurred for them in the past 12 months. Life change unit scores for each of the selected events are then summed so that higher scores represent more life changes and greater adjustment demands.

**Cultural Distance.** A modified, Likert format version of Babiker, Cox, and Miller's (1980) open-ended Cultural Distance Index (CDI) was used in this study. Subjects were asked to rate (on a 5-point scale) the extent of the differences between their own backgrounds in New Zealand and their
present experiences in Singapore. This form of the CDI surveys 12 areas (e.g., food, climate, clothing, values); scores range from 0 to 48, with higher scores indicating greater perceived cultural distance. This modified structure proved reliable and valid in previous research with New Zealand students abroad (Ward & Kennedy, in press a).

**Acculturation.** The assessment of acculturation included two measurements: (a) cultural identity, and (b) cultural integration-separation. The first instrument pertains to salience and importance of one's cultural group in relation to personal identity. The construction of the scale was based on Tajfel's (1981) theory of social identity. The measurement includes 12 statements relating to topics such as similarity of own beliefs and values to those of other members of one's cultural group, similarities and differences between cultural groups, and perceptions of self and others in terms of group membership. Subjects respond to each statement on a 7-point bipolar scale. As such, scores range from 0 to 72, with higher scores representing stronger identity with one's culture of origin.

The cultural integration-separation index (CIS) pertains to the sojourners' affective and behavioral proximity to original and host cultures. The construction of this scale was based on earlier work by Kim (1988), who investigated the separation-integration dimension of acculturation proposed by Berry and colleagues (Berry, Kim, Power, Young, & Bujaki, 1989). This form of the CIS surveys 13 areas (e.g., food, language, friendships), and subjects are asked to indicate the extent of their preference for New Zealand versus host-culture norms, customs, and traditions. CIS scores range from 0 to 52. Higher scores are associated with greater separation from the host culture. Culture-specific variations of this scale proved reliable and valid in previous research with New Zealanders as well as Asian sojourners (Ward & Kennedy, in press a, in press b).

**Interpersonal Relations.** The questionnaire incorporated assessment of both the quality and quantity of interpersonal relations with host nationals and co-nationals. Subjects rated the frequency of voluntary social contact (e.g., social and recreational activities) with New Zealanders and Singaporeans in seven areas. Ratings were made on 4-point scales (end points: never/often). Mean scores were calculated for host national and co-national encounters, with higher scores indicative of more frequent interaction. Satisfaction with social contact was also rated on a 4-point (low–high) scale.

In addition to the assessment of host and co-national contact, subjects who were married or in de facto relations completed a 5-item relationship satisfaction scale. These items were excerpted from the Marital Quality Index (Norton, 1983). Subjects used 5-point scales to agree or disagree with four statements about their relationships; they also rated overall
marital satisfaction (on a 7-point scale). Higher scores (range = 0-22) represent greater satisfaction with personal relationships.

**Psychological Adjustment.** In line with our past work on sojourners, the Profile of Mood States (POMS) was used as a measurement of psychological adjustment. This 65-item scale by McNair, Lorr, and Droppleman (1971) describes a variety of mood states commonly associated with the psychological symptoms experienced by sojourners on their move to a new country. These states include tension, sadness, anger, fatigue, confusion, and vigor. Subjects rate the intensity of their emotional experiences during the past week. Each rating is made on a 5-point scale so that scores range from 0 to 260, with higher scores indicating greater mood disturbance.

In addition to this, the Zung (1965) Self-rating Depression Scale (ZSDS) was used. Subjects rely on 4-point frequency scales to respond to 20 statements that cover affective, physiological, and psychological components of depression. Scores range from 0 to 60; higher scores are associated with greater depression. The ZSDS scale was introduced for the more specific exploration of depression.

**Sociocultural Adjustment.** This instrument focuses on the skills that are required to cope with everyday social situations in a new culture. The development of the scale was based on work by Furnham and Bochner (1982) with the Social Situations Questionnaire; however, unlike the original measurement, the reference points for social difficulty were not framed in affective terms (e.g., fear, anxiety, embarrassment). Subjects use 5-point scales to rate the amount of difficulty they experience in a variety of social situations. The culture-specific version for New Zealanders in Singapore contains 21 items; scores range from 0 to 84, and higher scores represent greater social difficulty in negotiating the host culture. Similar versions of the Social Difficulty scale have proven reliable and valid with culturally diverse samples of sojourners (Searle & Ward, 1990; Ward & Searle, 1991).

**Procedure**

Contact was initially made with the Australian and New Zealand Association in Singapore for the recruitment of local research assistants for data gathering. Three assistants distributed the questionnaires among community members through clubs, social activities, businesses, and personal contacts. Respondents were allowed to complete the questionnaires at their convenience and were requested to return the surveys to the research assistants. Subjects' participation was voluntary, and their responses were anonymous and confidential. Of 184 questionnaires distrib-
uted to New Zealanders resident in Singapore, 84 (46%) were returned to the researchers.

RESULTS

Scalar Reliability and Validity

Preliminary data analysis consisted of testing the internal reliability of each of the scales using Cronbach's alpha. Most scales proved highly reliable: extraversion (.85), locus of control (.87), cultural distance (.79), cultural identity (.78), cultural integration–separation (.75), contact frequency with New Zealanders (.80) and Singaporeans (.69), and relationship satisfaction (.89). The measures of sociocultural and psychological adjustment also demonstrated high internal consistency: social difficulty (.76), depression (.80), and profile of mood states (.94).

Scalar validity was examined by intercorrelations among the predictor variables. High co-national contact was associated with strong cultural identity \((r = .38, p < .0001)\) and greater perceived cultural distance between New Zealand and Singapore \((r = .28, p < .005)\). High host national contact, by contrast, was related to extraversion \((r = .20, p < .04)\), greater cultural integration \((r = .20, p < .04)\), and length of residence in Singapore \((r = .19, p < .05)\). Cultural separation was significantly related to cultural distance \((r = .24, p < .01)\), but cross-sectional data suggested that this decreased over time \((r = -.19, p < .04)\).

Models of Psychological and Sociocultural Adjustment

Stepwise regressions were performed to construct predictive models of psychological and sociocultural adjustment. The following were examined as predictor variables: sex, locus of control, extraversion, life changes, frequency of and satisfaction with host and co-national contact, personal relationship satisfaction, cultural distance, cultural identity, and cultural integration–separation. In the first analysis, locus of control, relationship satisfaction, frequency of contact with Singaporeans, and sociocultural adjustment emerged as significant predictors of psychological well-being. More specifically, mood disturbance was associated with external locus of control, relationship dissatisfaction, high contact with Singaporeans, and social difficulty. These variables accounted for 32% of the variance on the Profile of Mood States; \(F(4, 79) = 9.3, p < .0001\). The beta weights are reported in Table 1. Depression was also examined as an assessment of psychological adjustment. In this case, only locus of control \((\beta = .40, p < .0001)\) and SRRQ life changes \((\beta = .25, p < .01)\) emerged as significant predictors of depression. These variables in combi-
TABLE 1  
Psychological Adjustment of Sojourners:  The Predictors of Mood Disturbance  

<table>
<thead>
<tr>
<th>Predictors</th>
<th>Beta</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Locus of control</td>
<td>.28</td>
<td>.004</td>
</tr>
<tr>
<td>Social difficulty</td>
<td>.28</td>
<td>.004</td>
</tr>
<tr>
<td>Relationship satisfaction</td>
<td>-.24</td>
<td>.01</td>
</tr>
<tr>
<td>Contact with host nationals</td>
<td>.21</td>
<td>.03</td>
</tr>
</tbody>
</table>

nation accounted for 25% of the variance on the ZSDS; \( F(2, 81) = 13.2, \) \( p < .0001. \)

With respect to sociocultural adjustment, length of residence, cultural distance, cultural identity, and psychological adjustment combined to account for 42% of the variance in social difficulty; \( F(4, 79) = 14.4, \) \( p < .0001. \) In this case, social difficulty was predicted by a short period of residence in Singapore, greater perceived cultural distance, strong cultural identity, and mood disturbance (see Table 2). Substituting depression for mood disturbance in the stepwise regression achieved the same results, although the four variables in combination then accounted for 36% of the variance in sociocultural adjustment; \( F(4, 79) = 11.2, \) \( p < .0001. \)

*Locus of Control, Social Difficulty, and Mood Disturbance*

Although the multiple regression confirmed that an internal locus of control and low level of social difficulty were associated with psychological adjustment, this analysis does not explicitly consider possible interaction effects between these two variables. As such, the final analysis further examined the relationship between locus of control and sociocultural adaptation and their impact on psychological adjustment of sojourners. The analysis relied on median splits, with subjects divided into internal

TABLE 2  
Sociocultural Adjustment of Sojourners:  Predictors of Social Difficulty  

<table>
<thead>
<tr>
<th>Predictors</th>
<th>Beta</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Length of residence</td>
<td>-.45</td>
<td>.0001</td>
</tr>
<tr>
<td>Cultural distance</td>
<td>.27</td>
<td>.004</td>
</tr>
<tr>
<td>Mood disturbance</td>
<td>.33</td>
<td>.0003</td>
</tr>
<tr>
<td>Cultural identity</td>
<td>.26</td>
<td>.004</td>
</tr>
</tbody>
</table>
versus external locus of control and successful versus unsuccessful sociocultural adaptation conditions. The effectiveness of the median split technique was confirmed by *t* tests; significant differences emerged on the personality measurement (*t*(76) = 11.5, *p* < .0005; *M*<sub>i</sub> = 14.8, *M*<sub>e</sub> = 31.4) and the social difficulty assessment (*t*(73) = 12.5, *p* < .0005; *M*<sub>i</sub> = 6.7, *M*<sub>e</sub> = 17.3). The subsequent 2 by 2 analysis of variance revealed main effects for both locus of control and sociocultural adaptation on psychological adjustment. Those with an external LOC reported greater mood disturbance (*F*(1, 64) = 4.63, *p* < .04) and evinced higher levels of depression (*F*(1, 64) = 7.7, *p* < .007). Subjects who were unsuccessful in sociocultural adaptation (i.e., experienced high levels of social difficulty) demonstrated more general mood disturbance (*F*(1, 64) = 4.3, *p* < .04), although this factor did not specifically affect depression scores (*F*(1, 64) = 1.1, NS). Means are reported in Table 3. Interaction effects were not significant. *F*(1, 64) = 2.1, NS, for POMS, and *F*(1, 64) = 0.2, NS, for depression.

**DISCUSSION**

The research undertaken here was prompted by two major objectives. The first concerned the examination of clinical, cognitive, and behavioral variables in the construction of predictive models of psychological and sociocultural adjustment. On this count, the findings are broadly consistent with earlier research by Ward and colleagues and further corroborate the discriminant validity of the two adjustment domains. The second objective focused more specifically on the effects of locus of control and its interaction with sociocultural adaptation on sojourners’ psychological well-being. In this instance, results revealed that both locus of control and sociocultural adaptation influenced psychological adjustment, but that the two factors did not produce interactive effects.

Psychological distress, as assessed by a measurement of general mood disturbance, was predicted by external locus of control, personal relation-
ship dissatisfaction, sociocultural adjustment problems, and a high incidence of host national contact. Depression, more specifically, was dependent upon external locus of control and a high incidence of life changes. Contrary to the hypothesis, extraversion did not emerge as a significant predictor of psychological adjustment; this conflicts with earlier research (Armes & Ward, 1989; Searle & Ward, 1990) but is consistent with more recent findings (Ward & Kennedy, in press a, in press b). Life changes, personality, social support, and sociocultural adaptation have been linked to psychological adjustment in previous studies (Searle & Ward, 1990; StoneFeinstein & Ward, 1990; Ward & Searle, 1991); one significant difference in this sample is the association of mood disturbance with high host national contact.

Our past research has indicated that it is the quality rather than the quantity of host national contact that affects psychological well-being (Searle & Ward, 1990; StoneFeinstein & Ward, 1990; Ward & Kennedy, in press b). In contrast, the quantity of host national contact has been predictive of sociocultural adaptation (Ward & Kennedy, in press b). These findings parallel more general research on stress, coping, and social learning. Relationship satisfaction, including relationships with hosts, implies adequate social support, and the link between satisfying personal relations and diminished mood disturbance is congruent with the substantial clinical literature on social support and mental health (e.g., Leavey, 1983). The actual amount of contact with hosts, however, may or may not reflect the quality of that contact. Nevertheless, the contact does provide the opportunity for learning the necessary culture-specific skills for coping with a new environment, and it is typically associated with enhanced sociocultural competence (Furnham & Bochner, 1986).

The unexpected link between high host national contact and mood disturbance reported in this study reiterates the necessity of viewing the process of cross-cultural transition and adjustment within its particular sociocultural milieu. Along these lines, it is interesting to note that Ward and Kennedy (in press b) reported that frequent contact with hosts was also predictive of mood disturbance in Malaysian students in Singapore. In an earlier study, Armes and Ward (1989) found that extraversion was associated with affective discomfort (boredom, loneliness, depression, and anxiety) in English-speaking expatriates in Singapore. It may be that in these instances the host culture is neither open nor receptive to foreigners, so that sojourner-host contact, particularly for outgoing and sociable expatriates, is exceptionally stressful. A similar argument, though contextualized in a stage theory of adjustment and language development, has been advanced by Tanaka, Takai, Kohyama, Muranaka, and Fujihara (in press) in their study of international students in Japan. The significance of host culture receptiveness to foreigners in the cross-cultural adjustment process certainly deserves further exploration.
The prediction of sociocultural adaptation largely followed an expected pattern, with social difficulty dependent upon length of residence in host culture, cultural identity, cultural distance, and psychological adjustment. Social skills improved over time, and sociocultural difficulties were associated with greater perceived cultural distance; that is, the more dissimilar host and original culture, the more problems experienced by sojourners. These findings fit neatly within a social learning framework of cross-cultural adaptation (Furnham & Bochner, 1986). In addition, a strong identity with one's original culture impeded the development of the complex social skills required to negotiate a new cultural environment, although cultural integration–separation was not significantly related to sociocultural adaptation. Finally, psychological and sociocultural adjustment were interrelated; mood disturbance was linked to greater social difficulties. Again, the association between psychopathology, particularly depression, and social skills deficits has been documented in clinical studies (Haley, 1985).

With respect to locus of control, analysis revealed a simple main effect for the I–E dimension on the psychological adjustment of sojourners. External locus of control was associated with greater mood disturbance in general and a greater incidence of depressive symptoms more specifically. Reconsideration of Rotter's (1966) initial theory, reference to his comments on its recent development (Rotter, 1990) and critical scrutiny of the expanding empirical literature on locus of control can elucidate these findings. Strickland (1989) has argued that much of the contemporary research on locus of control has neglected its social learning underpinnings or has inappropriately extended the concepts to new theoretical applications. She argues that the "reinforcement value and the intricacies of the situation in which behavior is occurring" must be taken into account for the most precise prediction of I–E outcomes (p. 4). Along these lines, circumstances that are unfamiliar and situations that are ambiguous would lend themselves to strong I–E influences. This description mirrors the cross-cultural transition experience, which has often been noted for its novelty and ambiguity (Oberg, 1960; Furnham & Bochner, 1986). Strickland's position, combined with theoretical applications of LOC to clinical psychology such as Bandura's (1977) self-efficacy model or Seligman's (1975) learned helplessness theory, suggests a link between psychological distress and external locus of control. Bandura's self-efficacy model, for example, has posited that efficacy expectancy is dependent upon internal locus of control and confidence in obtaining one's desired goals, whereas Seligman (1975) has argued that perceived non-contingency or lack of control prompts beliefs in the inescapability of aversive situations. Perceived loss of control can certainly generate augmented stress reactions (Miller, 1979). The results reported here, then, reflect more general findings on personality and mental health (Lefcourt,
Locus of Control and Sojourner Adjustment

1984) and corroborate some of the more specific research findings on immigrants (Dyal, Rybensky, & Somers, 1988; Kuo & Tsai, 1986).

The empirical support of the association between an internal locus of control and psychological adjustment merits further discussion with reference to the two alternative hypotheses on locus of control and mental health:

1. The possible interaction of LOC and sociocultural competence.
2. The hypothesized cultural differences in the adaptive functions of LOC.

In the first instance, the straightforward association between an internal locus of control and psychological well-being reported in this research seems inconsistent with findings on motivational features of the self-serving bias, i.e., that ego-enhancing benefits ensue from internal attributions for success and external attributions for failure. It should be noted, however, that the social psychological theory and research on the self-serving bias are distinguished in terms of situationally specific attributions rather than personality or general attributional styles, and that adaptive consequences of the bias have been discussed more specifically in terms of self-esteem rather than mood states. Our findings also appear, at first glance, to contradict Abramson, Seligman and Teasdale's (1978) reformulation of the learned helplessness model, which specifies that depressed individuals attribute negative life events to global, stable, and internal causes. Again, the measurement used here is not situation specific, nor does it explicitly incorporate the globality and stability dimensions. The specificity of the attributional/locus of control instrument also distinguishes our research from that of Moghaddam et al. (1990).

In the second instance, the alternative proposition that externality may be linked to coping skills and positive psychological outcomes in Asian cultures is at present more hypothetical than empirical. The theorizing is underpinned by claims of Western ethnocentrism and the notion of "cultural fit," but the research found no support for the contention that an external orientation is adaptive for Western sojourners in an Asian society. Despite these findings, however, the topic deserves further examination. First, the research presented here did not represent an adequate test of "cultural fit" due to the absence of appropriate host culture norms for comparisons. Secondly, the potential adaptive features of an external locus of control in Asian subjects in societies that are underpinned by Karmic or similar fatalistic philosophies remain to be investigated.

Despite the reasonably robust findings reported here, there are two issues that suggest that the results should be viewed with some caution. The first relates to the return rate of the questionnaires. The fact that less than half (46%) of the respondents returned completed questionnaires
may call into question the representativeness of the sample. Although it is impossible to specify the direction of the bias, this limitation should be borne in mind. Secondly, the use of multiple regression analysis implies a causal ordering of variables in the construction of predictive models. Although this is a common approach in sojourner research, it is difficult to conclusively place some of the variables into a temporal sequence. For example, it is reasonable to assume that personality traits such as extraversion and locus of control are antecedent to recent mood disturbances, but factors such as host culture contact may be a consequence, rather than a predictor, of social skills deficits or affective distress.

In conclusion, the research has pursued two major objectives: (a) the specific investigation of the main and interactive effects of locus of control on psychological well-being, and (b) the more general construction of predictive models of psychological and sociocultural adjustment during cross-cultural transitions. In terms of the first objective, the research has assisted in the clarification of the impact of locus of control on psychological adjustment. Locus of control has been a salient variable in both acculturation research and in social cognition. In the broader terms of personality research, however, this study, with its specific focus on LOC, may be criticized as somewhat narrow and fragmentary. A growing consensus in contemporary personality theory and research is that the 5-factor model of personality (neuroticism, extraversion, openness, agreeableness, and conscientiousness) as proposed by McCrae and Costa (1985, 1987) represents a systematic and comprehensive taxonomy of dispositional traits. It may be a fruitful endeavor to incorporate theory from the mainstream personality literature into future investigations of cross-cultural transition and adjustment. With emphasis on the relationship between person and situation, this could result in the more systematic integration of personality, social, and cross-cultural psychology in the investigation of psychological and sociocultural adaptation of sojourners and immigrants.

In terms of the second objective, the predictive models of cross-cultural adjustment combined two major theoretical approaches to “culture shock” and incorporated theory and research from both clinical and social psychology. More specifically, personality, life changes, and social support variables were found to predict psychological well-being during a cross-cultural sojourn. These results are consistent with the mainstream literature on stress and coping in clinical and community psychology and with empirical research on personality and mental health. Length of residence in the host culture, perceived differences between original and host culture, and cultural identity were reported to predict sociocultural competence in a new social milieu. These findings are congruent with theory and research on social learning and social cognition. Placing these research results in the context of broader theoretical perspectives in con-
temporary psychology can assist in demystifying "culture shock." In short, factors that mediate psychological well-being during cross-cultural transitions are also conducive to adaptive coping in other contexts. Similarly, the factors that facilitate social skills learning in a new cultural environment, such as situational similarity or experience, extend beyond culture learning to learning processes in general. Educators, researchers, and trainers should bear this in mind when approaching the area of cross-cultural transition and adjustment.

REFERENCES


WARD, C., & KENNEDY, A. (in press a). Psychological and sociocultural ad-
justment during cross-cultural transitions: A comparison of secondary students 
WARD, C., & KENNEDY, A. (in press b). Where's the culture in cross-cultural 
transition? Comparative studies of sojourner adjustment. Journal of Cross-
cultural Psychology.
cultural identity on psychological and sociocultural adjustment of sojourners. 
YANG, K. S. (1986). Chinese personality and its change. In M. H. Bond (Ed.), 
The psychology of the Chinese people (pp. 106–170). Hong Kong: Oxford 
University Press.
YUM, J. (1988). Locus of control and communication patterns of immigrants. In 
Y. Y. Kim & W. B. Gudykunst (Eds.), Cross-cultural adaptation: Current ap-
Psychiatry, 12, 63–70.