ABSTRACT

Title of Dissertation: A STUDY OF SELF-AWARENESS, SELF-EFFICACY,

AND SOJOURNER ADJUSTMENT OVER TIME

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Most models of intercultural adjustment rely on the assumption that adjustment

changes systematically over the course of a sojourn.   However, studies in the

intercultural transitions literature generally have not found evidence of systematic

change, most likely hampered by their cross-sectional methodology. In the present study,

changes in psychological and sociocultural intercultural adjustment were examined using

data collected over time. Two additional constructs, intercultural adjustment self-efficacy

beliefs and self-awareness, also were studied for their change over the course of a

sojourn. Intercultural adjustment self-efficacy beliefs also were examined for their

temporal precedence over intercultural adjustment. Moreover, intercultural adjustment

self-efficacy was tested as a possible moderator in the relationship between self-

awareness and adjustment. To examine the process and progression of intercultural

adjustment, 52 U.S. university study abroad students reported their intercultural

experiences. They provided responses to measures just prior to departure, and again at one-month intervals during their first three months overseas. Latent growth modeling with factor means estimation was the primary method of data analysis, while path analysis was used as a secondary method. It was found that sociocultural adjustment, intercultural adjustment self-efficacy, and self-awareness changed in a systematic fashion. The trajectory of sociocultural adjustment was found to be similar to a "U"-curve, self-efficacy demonstrated upward growth, and self-awareness was found to be similar to an inverted "U"-curve. No systematic change in psychological adjustment was found. Self-efficacy beliefs were shown to demonstrate temporal precedence over changing sociocultural beliefs. Lastly, intercultural adjustment self-efficacy was shown to moderate the relationship between self-awareness and sociocultural adjustment, such that the relationship between self-awareness and sociocultural adjustment was stronger at higher versus lower levels of intercultural adjustment self-efficacy. Future areas of research, both in the international and domestic spheres were discussed, as well as the implications of the current study for counseling interventions and its limitations.

A STUDY OF SELF-AWARENESS, SELF-EFFICACY, AND

SOJOURNER ADJUSTMENT OVER TIME

by

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Chapter 1: Introduction

Living in a foreign country is often a life-altering event (Harrison, Chadwick, &
Scales, 1996; Jerusalem & Mittag, 1997; Mak & Tran, 2001). For some people it is the
chance of a lifetime to learn and develop a lasting appreciation for other cultures, gain a
better understanding of their own values and abilities, and begin friendships with foreign
nationals. These people could be described as having successfully adjusted and thrived
during an intercultural transition.

Other people's experiences are far different from those just listed. For them, life
in a foreign country is entirely dissimilar. It is a time of anxiety and interpersonal
frustration. Instead of a pleasurable experience, it is a period that may engender negative
beliefs and attitudes about other cultures, decreased confidence in one's ability to handle
difficult situations, or dislike of people from other countries or different cultural
backgrounds.

Understanding this basic difference in experience has been at the forefront of
intercultural transition research. Though the study of adjustment to life in a foreign
country has a relatively long history (Church, 1982), little progress has been made in
identifying variables that consistently predict successful and unsuccessful sojourns.
However, recent advances in the intercultural transition literature have opened new
avenues for researchers to study sojourners' experiences in a foreign country. Chief
among these advances is a relatively new conceptualization of sojourner adjustment.
Ward and her colleagues have developed a bipartite definition of sojourner adjustment

that accounts for two primary outcomes of intercultural transition (Ward, 1996). The first is psychological adjustment. This type of adjustment accounts for a person's emotional and cognitive reaction to life in a foreign country. The second type of adjustment is sociocultural adjustment, a behavioral and interpersonal form of adjustment. Ward and colleagues' program of research generally has supported their bipartite model of sojourner adjustment (Searle & Ward, 1990; Ward & Kennedy, 1992; Ward & Searle, 1991).

Change in Sojourners' Experience Over Time

Other aspects of a sojourner's overseas experience may be approached with more precision now that researchers have an empirically supported definition of sojourner adjustment at their disposal. One of the most enduring questions about intercultural transition is the nature of change during a sojourn. This topic itself often has spurred much speculation (Church, 1982; Zapf, 1991). Most theories of changing adjustment are based on a fundamental notion that sojourners progress through an identifiable pattern of adjustment whereby they enter the new culture with energy and excitement, followed by periods of increasing distress and psychological disintegration, ending with re-attainment of positive feelings. Defined as the U-curve hypothesis (Lysgaard, 1955), it remains an active point of inquiry despite dismal empirical support (Ward, 1996).

The lack of empirical support may be attributable in part to inappropriate research methodologies. Research with overseas participants is logistically difficult, and until recent advances were made with web-based questionnaires (Smith & Leigh, 1997), gaining access to sojourners' in vivo experiences has been excessively expensive and time consuming. Because of these logistical difficulties, cross-sectional research designs

are much more the norm than is change over time methodology. In the case of identifying change during intercultural transitions, change over time methodology seems worth the costs. One sees a clear difference in findings when examining the differences between studies that utilized cross-sectional and those that employed data collected over time. Change over time studies appear more adept at uncovering changing sojourner adjustment (e.g., Kealey, 1989), whereas cross-sectional designs do not (e.g., Ward & Kennedy, 1992). With the advent of web-based questionnaires, data collection over time of intercultural phenomenon is much less cumbersome.

Data collection over time also affords researchers the opportunity to explore other theorized changes that occur during intercultural transitions. For instance, Adler (1975) speculated that intercultural transition may engender heightened self-awareness that may be the cause of psychological difficulty commonly experienced by sojourners. Self-awareness is defined as a state of self-focus where the self becomes the object of one's attention (Davis & Franzoi, 1999; Duval & Wicklund, 1972; Fenigstein, Scheier, & Buss, 1975; Silvia & Duval, 2001). Collection of data through online means allows researchers to better track relatively dynamic shifts in self-focused attention over the course of a sojourn. Self-efficacy is another construct that has attracted increased visibility in the intercultural transition literature (Brenner, 2001; Harrison et al., 1996; Jerusalem & Mittag, 1997; Mak & Tran, 2001). Self-efficacy is defined as beliefs that one holds about his or her capabilities to perform at a specified level (Bandura, 1986). As with adjustment and self-awareness, little is known about the positive or negative growth of self-efficacy beliefs during sojourns.

Prediction of Sojourner Experience

The search for variables that serve as effective predictors of sojourner adjustment is a historical focal point of the intercultural transition literature (Benson, 1978; Church, 1982; Ward, 1996). This aspect of the literature has been criticized for a lack of theoretical coherence and an absence of studies that clearly state and test postulates derived from theory (Furnham & Bochner, 1986). Consistently using a bipartite definition of sojourner adjustment (e.g., psychological and sociocultural adjustment) partially addresses this concern (Ward, 1996). In utilizing an empirically sound outcome criterion, researchers can be less concerned with defining adjustment and can go about theorizing and testing models of how best to predict it, which was first suggested over two decades ago as a much needed, yet problematic aspect of the literature (Benson, 1978).

Two theories that may prove to be particularly promising in developing effective predictive models of sojourner adjustment are self-efficacy theory and objective self-awareness theory. Self-efficacy theory suggests that heightened efficacy beliefs are positively related to higher levels of general adjustment (Bandura, 1997). Recent attempts to study the phenomenon in intercultural settings generally have supported this contention (Harrison et al., 1996; Jerusalem & Mittag, 1997). However, those inquiries utilized generalized self-efficacy measures. Context-specific measures may yield even more convincing results (Lent, Hackett, & Brown, 1998).

Objective self-awareness theory offers an explanation of the process whereby increased self-focused attention may impact sojourner adjustment (Duval & Wicklund, 1972; Silvia & Duval, 2001). The theory holds that environmental cues cause a person to

become objectively aware of oneself. The theory postulates that self-awareness is an

inherently self-evaluative process with implications for affective reactions (e.g.,

adjustment). Two studies were identified that empirically explored a variable similar to

self-awareness during intercultural transitions, but their results were contradictory

(Harrison et al., 1996; Kealey, 1989). Part of the confusion may be due to their choice of

self-monitoring which is a static, personality-like variable defined as an individual's

capacity to adapt behavior to meet situational demands (Snyder, 1974). Recent research

emphasizes the dynamic nature of self-awareness (Govern & Marsch, 2001), which likely

needs to be taken into account when studying sojourner adjustment.

It is difficult, however, to make definitive statements about the effects of self-

awareness on sojourner adjustment. The original formulation of objective self-awareness

(OSA) theory suggested that self-awareness universally leads to negative self-evaluations

(Duval & Wicklund, 1972). Yet, self-awareness has been found to be related to positive

and negative intrapersonal and interpersonal outcomes (Davis & Franzoi, 1999), and

OSA theory has been revised to state that self-focused attention can result in both

negative and positive states (Silvia & Duval, 2001). Studies of people who are anxious

demonstrate that heightened self-awareness is an important correlate of their problematic

affective states (Alden, Bieling, & Wallace, 1994). Alden et al. demonstrated that

outcomes of self-focused attention (e.g., negative self-evaluation) were related to self-

efficacy beliefs. With those participants, individuals with high confidence in their

abilities, as measured by self-efficacy beliefs, did not exhibit problematic affective states.

If these results were to generalize to intercultural contexts, it may be that the effect that

self-awareness has on sojourner adjustment may be influenced (e.g., moderated) by intercultural adjustment self-efficacy.

Intercultural transition represents a unique area of inquiry that can be effectively studied by counseling psychologists. Recent trends in the intercultural transition literature have transformed deficit-based models of sojourner adjustment to models of transition and development. Counseling psychology offers much to the study of these phenomena. Formulating sojourner adjustment as an outcome of efficacy beliefs and environmentally cued self-focused attention will allow researchers and practitioners to draw upon a wealth of knowledge previously accumulated in the counseling psychology literature. For instance, practitioners could help develop instructional programs to bolster pre-departure sojourners' intercultural adjustment self-efficacy to better prepare them for their upcoming trip. Likewise, a practitioner could draw upon the multiculturalism literature for guidance in helping a sojourning client to recognize the power that the social and political environment has on perceptions of one's worth. This study, therefore, examined the development of sojourner intercultural adjustment self-efficacy beliefs, self-awareness, and adjustment over time. Moreover, by adopting an empirically supported definition of sojourner adjustment (e.g., psychological and sociocultural adjustment), it was possible to derive predictive models based on self-efficacy theory and objective self-awareness theory. Models that examine the effects over time of intercultural adjustment self-efficacy beliefs and self-awareness on adjustment were tested.

Chapter 2: Review of the Literature

Two questions remain a source of much discussion and inquiry in the intercultural transition literature. The first is the enduring question of change in sojourner characteristics over the course of a sojourn. Much theorizing and many empirical investigations have been devoted to the study of the postulated changes that occur from the beginning to the end of an intercultural experience. Work in this area has been prolific at times. Even when it is a less pressing issue, it remains an important secondary issue, and is often examined within the broader context of studies designed to explore other aspects of intercultural transition. To best grapple with the questions of change over time of sojourner characteristics an understanding of theory and research findings is needed. Studies that attempted to study change in sojourner adjustment with cross-sectional and change over time research methodology are presented. Two much less copious bodies of knowledge, change over time of sojourner self-efficacy beliefs and self-awareness, are then presented.

The second major point of inquiry in the intercultural transition literature is the search for variables that predict sojourner adjustment. Beginning with studies of missionaries and Peace Corp volunteers, intercultural transition researchers have developed a tradition of study in this area (Benson, 1978). Much, however, remains to be learned about the process and ultimate outcome of intercultural transition. An overview of the intercultural adjustment literature will review the role of two variables in predicting sojourner adjustment. Included here is an examination of the relationship

between intercultural adjustment self-efficacy beliefs and sojourner adjustment, and the potential moderating role that self-efficacy may place on the relationship between self-awareness and adjustment.

Positive and Negative Growth of Sojourner Characteristics

Intercultural transition researchers commonly study growth and decline of sojourner psychological functioning, emotional well being, or interpersonal functioning -- all indicators of sojourner adjustment. A review of studies that examined changes in sojourner adjustment over the course of a sojourn in a foreign country through cross-sectional and change over time methods is presented below. Next, a review of studies that examined a bipartite structure of sojourner adjustment (psychological and sociocultural) is reviewed. These studies demonstrate that sojourner adjustment is not a unitary construct; rather, there are two interrelated aspects that should be accounted for when studying adjustment over time. Though the study of changes in sojourner adjustment is the most commonly scrutinized aspect of change over time in sojourner characteristics, other psychological variables have been studied. Self-efficacy, though a relative newcomer to the intercultural transition literature, also has been studied for change over time. One study examining change in self-efficacy over time will be presented. Lastly, although no empirical work has been completed in the intercultural transition literature on self-awareness, theoretically relevant works are reviewed that discuss self-awareness.

Change in Sojourner Adjustment Over Time

Change over time in sojourner adjustment has been the subject of extensive theorizing. The most enduring notion of growth in sojourner adjustment is known as the

U-curve hypothesis of adjustment (Lysgaard, 1955). As implied by the name of the

hypothesis, adjustment supposedly follows a curvilinear trajectory. According to this

hypothesis a sojourner enters the foreign country with euphoric excitement. This

changes, however, to increasing unhappiness and distress. Finally, the sojourner begins

to recover and regains his or her positive feelings and attitudes. This basic idea has been

incorporated into many stage models of sojourner adjustment. In reviewing stage models

from 1954 to 1985, Zapf (1991) identified a total of 19 that generally conform to the U-

curve trajectory.

Unfortunately, the copious theorizing about change over time in sojourner

adjustment has not been matched by empirical support. Attempts to uncover this

phenomenon have resulted in contradictory results. Results generally have found either

(a) the opposite (e.g., an inverted "U"-curve), (b) linear or stable trajectories, or (c) no

evidence of changing sojourner adjustment. Selected studies are presented here that

demonstrate methodological weaknesses that may be responsible for the lack of empirical

clarity.

Cross-sectional designs. One of the most commonly employed methodologies for

studying changing sojourner adjustment is cross-sectional data analysis. Using this

methodology, researchers collect data from sojourners at one point in time. Samples are

then divided into groups of sojourners based on varying lengths of time in a foreign

country (e.g., 1-3 months = group 1, 4-6 months = group 2). These groups are then

examined for differences in adjustment. Hsiao-Ying's (1995) study of sojourner

adjustment in Japan utilized this strategy. Data were collected from 321 sojourners from

44 countries. Participants ranged in age from 17 to 66 years. Relevant themes of

adjustment in this study were generated by examining letters to the editor sent to English-language newspapers published in Japan. A measure was constructed using these themes, and was subjected to a principal components analysis. It suggested a four-factor structure of adjustment consisting of attitudes toward Japan, nativism, host culture as model, and alienation.

To examine change over time, participants were divided into 6 groups based on their amount of time in Japan. Participants were divided into period 1 (0-6 months), period 2 (7-12), period 3 (13-24), period 4 (24-36), period 5 (37-60), and period 6 (more than 61 months). The author contended that the latter groups are composed of longer time spans because the adjustment process presumably slows as sojourners live longer in a foreign country. Utilizing the cross-sectional methodology they found decreasing adjustment over time. Maladjustment appeared to increase up to year three of the sojourn and then flattened out to a consistently low level of adjustment.

Though a wide range of time in Japan was covered by Hsiao-Ying's (1995) study, as with cross-sectional data in general, it is hard to draw definitive conclusions from the data. Adjustment appears to decrease, but that trend may be due more to an artifact of cohort membership than time in a foreign country. For example, the people who have been in Japan for 37-60 months (period 5) could have experienced a particularly traumatic entry into the country because of economic conditions in Japan at the time of their entry. Their entry into Japan under those conditions may influence their adjustment more than time in the country per se.

The inability to rule out cohort effects is a criticism that can be leveled against any study utilizing cross-sectional designs, and is especially problematic when only

studying the experience of sojourners in one country. If one broadens the scope of study to include many countries in different world regions, the possibility of cohort effects may be lessened, but not eliminated (e.g., international events could still affect most participants). Janssens (1995) studied the adjustment of sojourners on 6 continents. They were Belgian-based managers (96% male) with an average age of 39 years. Janssens studied sociocultural adjustment of the managers, relying on an author-constructed measure of intercultural interaction to operationalize the construct. Time in the country was measured with one item asking about time (in months) in the foreign country. The author tested adjustment for linear and curvilinear growth as a function of time. Both were significant for positive growth. Adjustment in this sample generally appeared to increase with time. The positive curvilinear effect was likely a result of a relative dip in adjustment found in participants who had been in their respective countries for 18 months. Although one is able to make somewhat stronger inferences about the effects of time with these data because many countries on 6 continents are represented in the data, it is still not possible to definitively state whether individuals change with time during their sojourn.

Change over time designs. Kealey (1989) attempted to gain a better understanding of growth in individual adjustment over time with a mixed change over time/cross-sectional design. He sampled 277 Canadians working in four regions of the world including: Asia, Anglophone Africa, Francophone Africa, and the Caribbean. Eighty-nine participants were part of the change over time data collection sub-sample, and 188 respondents comprised the cross-sectional sub-sample. The cross-sectional sample included participants who responded to the questionnaires at only one point in

time. Analysis of variance indicated that change over time and cross-sectional respondents were not significantly different on the variables and were, thus, combined. Using Cantril's (1965) satisfaction scale, Kealey found evidence that the combined sample (change over time and cross-sectional) had significantly different mean satisfaction scores at different points while they were overseas (e.g., 1-3 months, 4-6 months, 7-12 months, 13-24 months). He found that the longer that the participants were overseas, the more satisfaction they reported.

Kealey also attempted to examine changes in adjustment by dividing the sample into groups based on different growth trajectories. He found that approximately 35% of the sample showed a positive linear increase in satisfaction. Approximately 55% of the sample maintained the same level of satisfaction that they reported prior to departure. Only approximately 10% of the sample demonstrated the much-hypothesized U-curve pattern. Although informative, these groups of sojourners were formed by the author in an attempt to analyze trends in the data, and do not represent statistically defensible categories. Additionally, combining the change over time sample with the cross-sectional sample, though increasing the sample size, effectively negates the advantages of a change over time research design. Because this is the only example of change over time work that could be identified, it is clear that further studies that employ a change over time design are needed.

Measuring change in multidimensional aspects of sojourner adjustment. Deciding how best to operationalize sojourner adjustment is a critical feature of the study of sojourner adjustment growth or decline. Sojourner adjustment has a long history of diverse definitions (Benson, 1978). Recent work has suggested, however, that most

definitions of sojourner adjustment can be grouped into one of two types – psychological and sociocultural (Ward, 1996). Thus, most measures of adjustment tend to tap sojourner's (a) affective or cognitive reactions (psychological) to the foreign country, or (b) interpersonal functioning, cultural knowledge, or intercultural communication skills (sociocultural).

Adopting a bipartite structure of sojourner adjustment may allow researchers to more clearly study changes in sojourner adjustment. From two of the just highlighted studies it is evident that the two types of adjustment may not follow the same trajectory. Hsiao-Ying's (1995) study, relying on a measure of psychological adjustment, demonstrated a decreasing adjustment pattern for those participants. Janssens' (1995) examination of intercultural interaction (sociocultural adjustment) demonstrated the opposite. Sociocultural adjustment increased for the participants in her study. Similarly, in a recent review of their measure of sociocultural adjustment, Ward and Kennedy (1999) reported a general pattern of improvement in sociocultural adjustment with time.

Ward and her associates have extensively studied the bipartite model of sojourner adjustment. Their results support the division of adjustment into two constituent components. In one of their first studies, they examined the experience of 105 Malaysian and Singaporean students with a mean age of 21.2 years (53% female) in New Zealand (Searle & Ward, 1990). The participants had been in New Zealand for an average of 27 months, with a range of six months to six years. They used the Zung Self-Rating Depression Scale as a measure of psychological adjustment, and an author-constructed measure of self-rated management of everyday social interactions and living in a foreign country as an indication of sociocultural adjustment (Cronbach's alpha = .81). The

authors included many measures of independent variables that were used to build models to predict psychological and sociocultural adjustment.

The independent variables included expected difficulty with the new culture, perceived cultural "distance" between their home and host culture, the frequency and satisfaction of contact with co-nationals and host-nationals, attitudes towards New Zealand, extraversion, and level of reported stress. In addition, sociocultural adjustment was used to predict psychological adjustment, and vice versa. Lower psychological adjustment was significantly related to poorer sociocultural adjustment ($\beta=.28$), more experienced adjustive stress ($\beta=.28$), less satisfaction with host-national contact ($\beta=-.28$), and higher extraversion ($\beta=-.30$). Lower sociocultural adjustment was predicted by lower psychological adjustment ($\beta=.31$) and two variables different from those that were significant predictors of psychological adjustment (greater expected difficulty with a foreign culture, $\beta=41$, and more perceived cultural distance, $\beta=.17$). This pattern of results suggests that psychological and sociocultural adjustment are predicted by mutually exclusive sets of independent variables, and that they are distinct but moderately related aspects of sojourners' experiences ($\underline{r}=.38$).

Notably, Searle and Ward (1990) narrowly defined psychological adjustment as the absence or presence of depression. Other forms of psychological reactions were not assessed, limiting conclusions to the mood of depression. Their findings cannot speak to other types of negative psychological adjustment (e.g., anxiety) or to indications of positive adjustment (e.g., well-being). Moreover, it is difficult to draw inferences about the origins of participants' depression because their level of depression was not assessed prior to departure. Participants who reported feelings of depression may have felt

depressed prior to leaving for their sojourn, and their elevated self-report of depression may be unrelated to their experience as a sojourner.

Support for Ward and associates' bipartite model of sojourner adjustment has been found in other studies. For instance, Ward and Searle (1991) studied a culturally diverse sample of participants from 42 countries. The total sample was composed of 155 university students (110 men) ranging in age from 18 to 41. In this study psychological adjustment was measured by the Profile of Mood States (McNair, Lorr, & Droppleman, 1971).

Ward and Searle (1991) found that 27% of the variance in poor psychological adjustment was accounted for by measures of loneliness and cultural distance. Cultural knowledge and cultural identity accounted for 14% of the variance in sociocultural adjustment. This pattern of results where psychological and sociocultural adjustment are predicted by different variables is further evidence of the utility of distinguishing between the two types of adjustment. Notably, psychological adjustment and sociocultural adjustment were significantly related ($\underline{r}$=.35) so they are not entirely independent constructs. As with their previous study, it is difficult to make definitive statements about the origins of psychological adjustment while in a foreign country. Had they collected pre-departure data, the researchers could have assessed whether psychological adjustment differed from their pre-sojourn level of adjustment.

It is important to note that the authors made attempts to search for different levels of adjustment based on time in a host country (Searle & Ward, 1990; Ward & Searle, 1991). In their study of sojourners to New Zealand they divided their sample into five periods of residency that allowed them to analyze their data for cross-sectional

differences in adjustment (Searle & Ward, 1990). They found no differences for either type of adjustment. Using a similar procedure, the authors examined the data from their second study for cross-sectional differences in adjustment (Ward & Searle, 1991). Again, they did not find any differences for either type of adjustment based on time in the host-country. Unlike studies where she and her colleagues utilized a data set collected over time (e.g., Ward & Kennedy, 1999), cross-sectional designs appear to fail to find effects due to time in the host country, suggesting that they are inadequate for detecting growth or decline in adjustment. It seems that reliance on cross-sectional methodology may make it difficult to find growth or decline in sojourner adjustment. However, these studies do suggest that it is best to study sojourner adjustment as a multidimensional construct. Psychological and sociocultural adjustment appear to be distinct but related constructs, and examinations of changing levels of adjustment should account for each type.

Change in Sojourner Self-Efficacy Beliefs Over Time

Although sojourner adjustment has received much attention in the theoretical and empirical intercultural transition literature, other aspects of sojourners' experience deserve attention. Self-efficacy and self-efficacy related variables (e.g., locus of control) have been increasingly studied aspects of intercultural transition (Brenner, 2001; Harrison et al., 1996; Jerusalem & Mittag, 1997; Ward & Kennedy, 1992). Self-efficacy beliefs have been studied in terms of their theorized influence on other variables important to intercultural transition but, curiously, have been infrequently studied for their own change over time. This is surprising given that they can be highly malleable beliefs (Bandura, 1997).

One study was identified that examined changing sojourner self-efficacy beliefs over time. Utilizing a change over time design, Jerusalem and Mittag (1997) measured generalized self-efficacy at three points in time. Participants were 124 adults (69 males) with an average age of 25 years who were living through the reunification process in Germany. East Germans moving to West Germany were assessed one month after the fall of the Berlin Wall (T1), six months later (T2), and a year after the second assessment (T3). At each point in time, participants were asked to respond to the German Generalized Self-Efficacy Scale (Jerusalem & Schwarzer, 1986). Participants' generalized self-efficacy did not show significant mean differences across any of the time periods.

As measured in their study, self-efficacy beliefs seem unaffected by moving to a new cultural environment. The stability of beliefs may be largely due to the type of self-efficacy belief measured, however. Generalized self-efficacy beliefs are global and trait-like in nature and, thus, may not be overly sensitive to changing residence. Additionally, they may not accurately reflect the type of context-dependent efficacy beliefs conceptualized by Bandura (1997). Self-efficacy beliefs specific to intercultural transition are likely more relevant when trying to understand the experience of sojourners (Brenner, 2001; Mak & Tran, 2001).

Change in Sojourner Self-Awareness Over Time

Several authors have made arguments for the inclusion of self-awareness as an important aspect of sojourners' experience. Hormuth (1990) postulated that self-focused attention is an important consideration because people's self-concepts are destabilized, which ultimately engenders self-awareness, when they find themselves in novel physical

and psychological environments (e.g., a foreign country). Adler (1975) posited that heightened self-awareness is an inherent aspect of any intercultural transition. However, it is a variable that is rarely studied.

Self-awareness may be an element of a sojourner's experience that changes greatly over the course of a sojourn. Deviations from a pre-departure baseline level of self-awareness may be related to important changes in critical social identity-related feedback. For instance, new social environments (e.g., a foreign country) may drastically change feedback received about one's relative social position and ability to cope within the environment (Ellemers, Spears, & Doosje, 2002). Similarly, American sojourners may experience a heightened sense of personal distinctiveness in a foreign country. Distinctiveness in relation to the social environment has been shown to be an important determinant in how people define themselves (McGuire, McGuire, Child, & Fujioka, 1978). Furthermore, distinctiveness theory suggests that people are conscious of themselves insofar as they perceive themselves to be different from those around them.

Social psychology experiments demonstrate that perceptions of feeling different may call attention to one's self. In a controlled laboratory setting Frable, Blackstone, and Scherbaum (1990) demonstrated that certain groups of people are much more mindful during social interactions. Forty-four participants were selected from a pool of over 600 female university students who reported that they possess a master status condition. According to Goffman (1963), a master status condition is a culturally valued or devalued group membership that occurs infrequently in the general population (e.g., being a gifted poet, a lesbian, or very wealthy). Master status conditions are either visible or concealable. Frable et al. were particularly interested in the experience of those who

reported devalued, concealable master status conditions. In their study, participants who met this definition were 8 females who were bisexual, rape survivors, or incest survivors. That is, 8 of the 44 participants possessed a devalued and concealable master status.

Subjects were matched with female confederates. Participants were led to believe that they were to take a questionnaire in the company of the confederate. In reality, the confederate and participant were video tapped for five minutes while the experimenter left the room to retrieve the supposedly missing questionnaires. After informing the participants about the real nature of the study the researchers obtained consent to review the videotape with the participants' help. The participants were asked to remember all that they could about the five-minute interaction with the confederate, in addition to thoughts and feelings that they had about the confederate during the interaction. Research assistants coded the participants' responses for the amount of thoughts and feelings listed, differentiating between direct perspectives and meta-perspectives. Direct perspectives are thoughts and feelings believed to have originated from the participant, while meta-perspective thoughts and feelings are those that the coders believed were adaptations of the confederates' verbalized feelings and thoughts.

Frable et al. (1990) found that those with a concealable, devalued status (bisexual, rape, or incest survivor) took the perspective of the confederates much more often as compared to the other participants in the study. This supported a hypothesis that those with culturally-defined devalued differences would be significantly more mindful of their self and social status during social interactions. That is, concealable distinctiveness was related to being highly aware of one's differences, and carefully attending to others in an effort to manage one's identity.

In real world situations, arousal of self-awareness is undoubtedly more complex than when elucidated by social psychology experiments, but studies such as these suggest that perceiving oneself to be different in social situations raises self-awareness. Self-awareness theories share a common premise that environmental factors are principally responsible for generating heightened focus on one's self (Duval & Wicklund, 1972; Fenigstein et al., 1975; Scheier & Carver, 1985; Silvia & Duval, 2001). These theories basically state that in the presence of certain environmental stimuli people become more aware of their personal characteristics, performances, and idiosyncratic histories. It has been shown that sojourners who find themselves in new sociocultural environments experience solidification, refinement, or redefinition of identity as well as heightened self-awareness (Church, 1982). The environmental cues found in a foreign country, therefore, likely arouse increased attention to the self as sojourners go about sensing and integrating their status as a foreign national (Sussman, 2000).

Objective self-awareness theory offers a conceptualization of self-awareness that may offer much to the study of intercultural transitions. Duval and Wicklund (1972) conceived that conscious attention alternates dynamically between one of two possible targets. One is the external environment. The other is one's self, conceived as an observable entity. In other words, OSA hypothesizes that the self becomes the object of one's own consciousness. The theory also specifies that changes between self-focused and environment-focused attention are dependent on the situational context, and are contingent on cues in one's environment (Duval & Wicklund, 1972; Silvia & Duval, 2001). Self-focused attention is, thus, conceived as a fluid state.

Two intercultural transition studies have examined variables akin to self-focused attention (Harrison et al., 1996; Kealey, 1989). These studies examined self-monitoring, which is a stable, personality-like trait defined as an individual's ability to adjust his or her behavior to situational demands (Snyder, 1974). By choosing self-monitoring, Harrison et al. (1996) and Kealey (1989) recapitulated a pattern often seen in the intercultural transition literature, namely, that personality variables are inconsistently related to adjustment (Church, 1982). Self-monitoring was a significant predictor of sojourner adjustment in one instance (Harrison et al., 1996), but not in the other (Kealey, 1989). Turning to a less static, more dynamic conceptualization of self-focused attention (e.g., self-awareness) may, therefore, prove valuable, and ultimately lead to more efficient models of sojourner adjustment.

Correlates of Sojourner Adjustment

The search for correlates and predictors of sojourner adjustment has been a central feature of the intercultural transition literature. A review of the sojourner adjustment literature by Church in 1982 surveyed many approaches taken in trying to predict a person's adaptation in a foreign country. Attempts at differentiating between those who do well overseas and those who do not have looked at personality variables, language proficiency, and previous intercultural experiences as potential significant predictors. Church concluded at the time that sojourner adjustment could not be accurately predicted, since there was little consistency and great contradiction across studies.

Intercultural transition researchers have suggested ways to address the shortcomings in the sojourner adjustment literature. Furnham and Bochner (1986) pointed to the lack of a central theory that guides study of sojourner adjustment. They

suggested that intercultural researchers could best advance the understanding of sojourner adjustment if they were to adopt a theory-testing approach. Others have suggested that clearer definitions of sojourner adjustment would help advance the field (Benson, 1978). Recent work in sojourner adjustment has made attempts to address both of these issues, especially concerns with arbitrary definitions of adjustment (Ward, 1996).

Much work remains to be completed, however, to gain a better understanding of significant predictors of sojourner adjustment. Although progress has been made in more clearly defining sojourner adjustment as a bipartite construct (psychological adjustment and sociocultural adjustment), the study of adjustment often relies on exploratory techniques, such as step-wise regression, to build predictive models (e.g., Ward & Kennedy, 1992). Incorporating more theory into the study of sojourner adjustment will likely help researchers to develop clearly testable postulates and to refine theoretical models of sojourner adjustment.

Studies that attempted to examine the relationship between self-efficacy beliefs and sojourner adjustment will be reviewed. Their results generally support the notion that self-efficacy theory (Bandura, 1997) may be useful in developing testable models of sojourner adjustment. Self-awareness theory (Duval & Wicklund, 1972; Silvia & Duval, 2001) and studies of the relationship between adjustment and constructs similar to self-awareness (e.g., self-monitoring and self-consciousness) are then presented. These studies illustrate the seemingly inconsistent relationship between self-awareness and adjustment. Finally, a rationale will be presented for hypothesizing that intercultural adjustment self-efficacy beliefs may moderate the relationship between self-awareness

and sojourner adjustment, which may explain the inconsistent findings regarding the self-awareness/adjustment relationship.

Self-Efficacy and Sojourner Adjustment

Few studies have examined the specific relationship between self-efficacy beliefs and sojourner adjustment. Generally, studies of self-efficacy and sojourner adjustment suggest that further exploration of their relationship is warranted. Though lacking in sophistication, these studies generally support the notion that self-efficacy beliefs play a role in the process of sojourner adjustment. Harrison et al. (1996) studied self-efficacy as a correlate of sojourner adjustment. Their sample consisted of 99 expatriates living in Europe who were mostly males (62%). The authors used the general and social subscales of the Self-Efficacy Scale (Sherer et al., 1982) as indicators of expatriates' self-efficacy beliefs. They correlated the subscale scores with measures of adjustment (general, work, and interaction adjustment). They found that generalized self-efficacy was significantly related to all three types of adjustment, and that social self-efficacy was significantly related to interaction adjustment. These results are encouraging as they suggest that self-efficacy is related to sojourner adjustment outcomes.

A study reviewed above for its search for changes in sojourner self-efficacy beliefs over time also studied the relation of self-efficacy to sojourner adjustment. Jerusalem and Mittag (1997) administered the German Generalized Self-Efficacy Scale (Jerusalem & Schwarzer, 1986) and the anxiety subscale from the German version of the State-Trait Personality Inventory (Hodapp, Schwarzer, Schwenkmezger, Laux, & Spielberger, 1988) at three points in time. As described above, 124 East Germans migrating to West Germany were asked to complete measures of self-efficacy and

adjustment (anxiety subscale) one month after the fall of the Berlin wall (T1), six months later (T2), and a year after the second assessment (T3).

Jerusalem and Mittag (1997) investigated self-efficacy's hypothesized effect on adjustment by using the ratings of self-efficacy at Time 1 to create two groups of migrants, those with high self-efficacy and those with low self-efficacy. They found that those participants with high self-efficacy relative to those with low efficacy were less anxious at Times 2 and 3, suggesting that generalized self-efficacy affects adjustment.

Studies in the domestic literature corroborate these findings. Holahan and Holahan (1987) studied the experiences of 52 elderly individuals (26 female, 26 male), who ranged in age from 65 to 75 years. The authors were concerned with the effect of changing roles and life transitions on adjustment. To study this they measured participants' self-efficacy beliefs twice, one year apart, using a measure of self-efficacy for dealing with daily hassles (Holahan, Holahan, & Belk, 1984), in addition to symptoms of depression, as measured by an author constructed index. Path analysis revealed that self-efficacy beliefs at Time 1 had a direct negative relationship to depression at Time 2 (β= -.31), in addition to indirect influence through social support at Time 2. The authors further strengthened their causal argument by controlling for depression at Time 1. Specifically, they calculated the partial correlation between self-efficacy at Time1 and depression at Time 2, controlling for depression at Time 1. They found a partial r of -.42 (p<.01), suggesting that self-efficacy is a viable predictor, even when the effects of on-going depression are controlled. In essence, they argued that higher self-efficacy beliefs lead to less symptoms of depression a year later as older adults cope with the changes in life caused by aging.

Harrison et al. (1996) and Jerusalem and Mittag (1997) used measures of generalized types self-efficacy in their studies, whereas Holahan and Holahan (1987) used domain specific self-efficacy. Generalized self-efficacy beliefs are self-referent beliefs that hold across many different situations, and can be conceived of as stabile, personality-like traits. As seen in the Holahan and Holahan study, domain specific efficacy beliefs had a medium effect on ratings of depressive symptoms, such that a standard deviation change in self-efficacy is predictive of a .31 standard deviation decline in depression symptoms. The self-efficacy research literature has generally found that domain specific self-efficacy beliefs, as compared to generalized self-efficacy beliefs, are more efficient predictors of domain specific outcomes (Lent et al., 1998). In the current study, therefore, an examination of the relationship between intercultural adjustment self-efficacy (Brenner, 2001) (defined as a situation-specific belief about one's ability to adjust to a foreign culture) and sojourner adjustment will be undertaken.

Self-Awareness and Sojourner Adjustment

Being aware of one's self has implications for adjustment. It may be that those who are aware of themselves are more adept at managing their feelings and adjusting their behavior to make the best of demanding situations. However, it may be just as likely that self-awareness causes a person to be constantly aware of and preoccupied with his or her shortcomings in relation to others, or with internalized cultural expectations.

Early theories of self-focused attention postulated that self-awareness is an inherently evaluative process (Duval & Wicklund, 1972). Moreover, according to the original formulation of objective self-awareness theory, evaluations that one makes about him- or herself are almost exclusively negative. This position has since been revised

(Silvia & Duval, 2001), as research has shown that self-focused attention can result in positive outcomes as well (Davis & Franzoi, 1999).

In social situations, standards of correctness theoretically stipulate acceptable behavior, attitudes, and traits (Duval & Wicklund, 1972). Intercultural transitions place sojourners in social and cultural environments where learning and adapting to the country's social and cultural norms are a necessary aspect of adjustment (Furnham & Bochner, 1986). Learning to navigate and express the accepted culture-specific social norms likely produces heightened awareness of behavior, attitudes, and traits. Furthermore, intercultural transitions are believed to be situations rife with bewildering environmental and cultural cues (Adler, 1975). Intercultural transitions should, therefore, theoretically heighten self-awareness.

The intercultural transition literature generally has not studied the effects of self-focused attention on sojourner adjustment. The only relevant empirical study that could be identified studied self-monitoring, finding that self-monitoring and sojourner adjustment were positively related (Harrison et al., 1996). As described earlier, participants in this study consisted of 99 expatriates living in Europe (62% male) with an average age of 45 years. The authors utilized the Self-Monitoring Scale (Snyder, 1974) and a measure of general, work, and interaction adjustment (Black & Stephens, 1989). They found that self-monitoring was positively related to general and interaction adjustment. Though this is an interesting and potentially useful finding, self-monitoring is a stable, personality-like trait that has little in common with dynamic self-awareness as conceptualized by objective self-awareness theory (Duval & Wicklund, 1972; Silvia & Duval, 2001). As an aside, they found that self-monitoring also was significantly related

to general and social self-efficacy, such that higher self-monitoring was related to higher levels of self-efficacy.

Self-consciousness is another construct that is somewhat similar to self-awareness. Like self-monitoring, self-consciousness is believed to be a personality trait. It is defined as a relatively permanent tendency to spend more or less time in the state of dynamic self-focused attention (Davis & Franzoi, 1999). Studies of self-consciousness have suggested that it can have both beneficial and detrimental effects on psychological health (Reeves, Watson, Ramsey, & Morris, 1995; P. J. Watson, Hickman, Morris, Stutz, & Whiting, 1994). For example, in times of significant life change, like an intercultural transition, self-consciousness has been shown to have significant health promoting features (Mullen & Suls, 1982). Eighty-eight undergraduates (approximately 50% female) took part in a change over time study examining self-consciousness and self-reported physical illness. At Time 1 students completed the private self-consciousness subscale of the Self-Consciousness Scale (Fenigstein et al., 1975), a life events scale, and a recent illness questionnaire. Three weeks later, Time 2, the students filled out the life events and illness measure. Mullen and Suls found that for students high in self-consciousness the occurrence of stressful life events did not increase their risk of illness. Students low in self-consciousness who experienced uncontrollable negative life events were more likely to report illnesses. The authors contend that participants high in self-consciousness can more effectively manage stress and illness-inducing negative life events, as compared to those low in self-consciousness. They suggest that people with high self-consciousness are better able to take action to more effectively cope with their

situation because they are more aware of their psychological and physical reactions to stressful life events.

Frable, Platt, and Hoey (1998) found an opposite pattern of results. They conducted a study focused on the experience of 18 university students with concealable culturally defined stigmas (i.e., gay students, people with bulimia, and adult children of economically disadvantaged parents). These 18 university students, along with students in three other groups (i.e., those with visible stigmas, concealable valued conditions, and visible valued conditions), were asked to wear stopwatches that periodically reminded them to fill out self-reports of their anxiety, depression, self-regard, social confidence, and feelings about physical appearance and abilities. Additionally, they were asked to make an indication as to whether they were in the company of similar others (e.g., a gay student with another gay student) or dissimilar others (e.g., an economically disadvantaged student with a group of economically advantaged students).

Across all situations those with concealable stigmas reported significantly lower psychological functioning. They reported higher situational anxiety, more feelings of depression, lower self-esteem, lower self-regard, lower social confidence, lower perceived physical attractiveness, and lower perceived physical ability in comparison with the other groups. However, when in the company of similar others those with concealable stigmas generally felt better about themselves. They experienced less anxiety and less depression when with similar others, as compared to times when they were surrounded by dissimilar others.

This pattern of results was only present for students with concealable stigmas, suggesting that something about the process of living with a concealable stigma results in

negative outcomes. When these results are interpreted in light of Frable et al.'s (1990) earlier work suggesting that those with concealable stigmas spend more time engaged in self-awareness than other groups, it may indicate that higher self-awareness is related to poorer psychological outcomes. The improved psychological functioning around similar others also seems to suggest that when degrees of distinctiveness are lessened, self-awareness (and its deleterious outcomes) lessen. This may point to the dynamic shifts in self-perception that may occur as self-awareness is manipulated.

Intercultural Adjustment Self-Efficacy as Moderator of the Relationship between Self-Awareness and Sojourner Adjustment

In light of studies that found conflicting outcomes of self-focused attention, it is difficult to speculate about the nature of the relationship between self-awareness and sojourner adjustment. In some instances being highly aware of one's self appears to lead to better interpersonal functioning and health promoting behaviors, but in other instances it leads to more attention paid to one's failings (Davis & Franzoi, 1999). To account for these different outcomes, it is possible that another variable moderates the relationship between self-awareness and its outcomes. In the current context, a sojourner's confidence in his or her ability to handle intercultural adjustment may change the relationship between self-awareness and adjustment. Specifically, one might find a positive relationship between self-awareness and sojourner adjustment when intercultural adjustment self-efficacy beliefs are high, and find a negative (or significantly less positive) relationship between self-awareness and adjustment when intercultural adjustment self-efficacy is low. A study in the domestic literature makes this seem like a plausible hypothesis.

Alden, Bieling, and Wallace (1994) studied the effect of self-focused attention on socially anxious individual's perceptions of others' expectations of them and their level of self-efficacy to live up to those expectations. They utilized a sample of 90 female undergraduates who where divided into anxious and non-anxious groups based on their responses to the Social Avoidance and Distress Scale (D. Watson & Friend, 1969). They administered the Multidimensional Perfectionism Scale (Hewitt & Flett, 1991), which includes a subscale of perceptions of others' unrealistic expectations of social behavior, and a self-efficacy measure asking them to evaluate their ability to perform social behaviors. In addition, they were asked to rate how often (from seldom to frequently) they evaluate their behavior during social interactions, as a measure of self-awareness.

In this study, anxious individuals, as compared to non-anxious individuals, believed that others expected them to demonstrate exceedingly high levels of social competence, and yet they felt inefficacious in their ability to perform social behaviors competently (Alden et al., 1994). Additionally, perceptions of others' expectations for exceedingly high social behavior was significantly correlated with high self-awareness. Taken together, these results suggest that high self-awareness and low self-efficacy may be related to problematic perceptions of others' expectations, which appears to be a component of high social anxiety. This is not necessarily evidence that self-efficacy moderates the relationship between self-awareness and adjustment, but it does give further credence to the theoretical position that self-efficacy beliefs are an important determinant of the valence (e.g., positive self-evaluation, negative self-evaluation) of the outcome of self-focused attention (Bandura, 1986).

Statement of the Problem

A clear understanding of the process and progression of intercultural adjustment is lacking in the intercultural transition literature. Many prognostications have been made about the trajectory of sojourner adjustment, and many models of adjustment have been put forth based on those ideas (Zapf, 1991). Most models tend to rely on the assumption that sojourner adjustment follows a U-curve pattern. However, few studies have found this theorized change in sojourner adjustment. Moreover, most studies have not found any evidence of any kind of systematic change. This has not stopped intercultural researchers from searching for the supposed change. Overall, it appears that cross-sectional attempts to explore changes in sojourner adjustment do not uncover consistent changes in adjustment (e.g., Searle & Ward, 1990; Ward & Kennedy, 1992; Ward & Searle, 1991). Change over time research designs, however, have had more success in finding temporal changes in adjustment (e.g., Kealey, 1989).

People change in ways other than level of adjustment as they progress through life in a foreign country. Self-efficacy beliefs are beginning to be recognized as an important variable in intercultural transitions (Harrison et al., 1996; Jerusalem & Mittag, 1997; Mak & Tran, 2001), but it is not understood how they change over the course of a sojourn. They may approximate the same growth curves as adjustment, or they may show a distinct pattern; further exploration is needed.

Self-efficacy beliefs have only been recently included in studies examining their relationship to sojourner adjustment. This general lack of inclusion in studies of sojourner adjustment may be due to the fact that self-efficacy measures have only recently been tailored for use in this context. Though generalized scales of self-efficacy

have yielded encouraging results (e.g., Harrison et al., 1996; Jerusalem & Mittag, 1997), research with context-specific measures of intercultural adjustment self-efficacy is needed (Brenner, 2001). Not only may intercultural adjustment self-efficacy and sojourner adjustment be related, dynamic changes in intercultural adjustment self-efficacy beliefs may lead to changing rates of sojourner adjustment.

Levels of self-awareness have received no exploration in the intercultural literature. Only two studies were identified that studied the similar construct of self-monitoring (Harrison et al., 1996; Kealey, 1989). Though sojourners theoretically experience higher levels of self-awareness as a result of their experience (Adler, 1975), these changes have not been documented. Change over time studies of self-awareness over the course of a sojourn are, therefore, needed.

Though intercultural transition theorists have long suspected that self-awareness is an important correlate of changing sojourner adjustment (Adler, 1975), it is a construct that has never been studied in intercultural contexts. It is difficult to ascertain how it may affect sojourner adjustment, however. Studies of self-awareness carried out in domestic settings have found that it shows contradictory patterns (Davis & Franzoi, 1999). At times it is linked to positive results, and at other times it is correlated with negative outcomes. To explain these different outcomes, it is necessary to look to other theories of the self for possible answers. Bandura's (1977; 1986; 1989; 1997) self-efficacy theory is a logical place to start. An important mechanism involved in self-awareness is the process of making self-evaluations (Duval & Wicklund, 1972; Silvia & Duval, 2001). Bandura (1986) suggested that a critical component of the self-appraisal process (e.g., appraisals of one's psychological or sociocultural adjustment) is an individual's beliefs

about his or her ability to cope with a situation, conceived as self-efficacy beliefs.

Changing levels of sojourner adjustment, driven by self-awareness, may be dependent on

one's intercultural adjustment self-efficacy beliefs. Study of this possibility is needed.

Hypotheses and Research Questions

Research Question 1a: Does sojourner psychological adjustment change in a systematic

manner?

Research Question 1b: Does sojourner sociocultural adjustment change in a systematic

manner?

Change over time studies of sojourner adjustment have found that sojourners'

adjustment levels fluctuate as a function of time in a foreign country (Kealey, 1989).

Moreover, other methodologies, like critical incidents qualitative methodology, also have

found evidence of changing adjustment (Pedersen, 1995). Though often postulated to

change in an initial negative curvilinear manner (e.g., U-curve hypothesis), empirical

evidence does not support any particular trajectory (e.g., positive linear change, negative

linear change, positive curvilinear change, negative curvilinear change).

Research Question 2: Do sojourner intercultural adjustment self-efficacy beliefs change

in a systematic manner?

Much less speculation has been made about the changing nature of self-efficacy

beliefs while overseas. Though it has been found that self-efficacy beliefs do not vary in

intercultural contexts with time, those findings are based on measures of generalized self-

efficacy, which are much less prone to situational influence (Jerusalem & Mittag, 1997).

Context-specific self-efficacy beliefs are more closely tied to specific situational

demands, and, therefore, may fluctuate as a result of time engaged in context-specific activities.

Research Question 3: Does sojourner self-awareness change in a systematic manner?

Heightened self-focused attention has long been hypothesized as an outcome of intercultural transition (Adler, 1975). No research to date has examined the supposed changes in self-awareness. Objective Self-Awareness theory (Duval & Wicklund, 1972; Silvia & Duval, 2001) and theories and studies of social distinctiveness (Frable et al., 1990; Frable et al, 1998; McGuire et al., 1978) suggest that cues in sojourners' environment should result in heightened self-awareness. However, specification of the expected growth pattern (e.g., positive linear, negative linear, curvilinear) over the course of a sojourn is not warranted as no theory or research guides this supposition.

Hypothesis 1a: Higher intercultural adjustment self-efficacy positively affects change in sojourner psychological adjustment.

Hypothesis 1b: Higher intercultural adjustment self-efficacy positively affects change in sojourner sociocultural adjustment.

Higher levels of positive intercultural adjustment self-efficacy beliefs are hypothesized to result in a positive change in sojourner adjustment. Therefore, higher levels of intercultural adjustment self-efficacy – that is, higher levels of confidence in one's ability to manage difficult situations in a foreign country -- is hypothesized to result in increased levels of sojourner adjustment. Previous studies in intercultural transition contexts (Harrison et al., 1996; Jerusalem & Mittag, 1997) and in the domestic sphere (Holahan & Holahan, 1987) support the contention that self-efficacy is positively related

to adjustment, but none have examined the hypothesis that intercultural adjustment self-efficacy demonstrates temporal precedence over adjustment for sojourners.

Hypothesis 2a: Intercultural adjustment *self-efficacy beliefs moderate the relationship between self-awareness and sojourner psychological adjustment, such that for those with high self-efficacy beliefs, the relationship between self-awareness and psychological adjustment will become more positive as self-awareness increases.*

Hypothesis 2b: Intercultural adjustment self-efficacy beliefs moderate the relationship between self-awareness and sojourner sociocultural adjustment, such that for those with high self-efficacy beliefs, the relationship between self-awareness and sociocultural adjustment will become more positive as self-awareness increases.

High self-awareness has been found to engender an inherently self-evaluative process, yet it is not possible to specify that self-awareness results in negative or positive self-evaluation (Silvia & Duval, 2001), suggesting that a third variable may moderate its outcome (e.g., higher or lower sojourner adjustment).

The ameliorative effects of high self-efficacy beliefs are well supported in domestic contexts (Bandura, 1997). However, no research has been conducted which examines the possibility that self-efficacy beliefs enhance adjustment during an intercultural transition. In addition to affecting adjustment directly (Hypotheses 1a and 1b), it is expected that intercultural adjustment self-efficacy beliefs will moderate the relationship between self-awareness and sojourner adjustment. Specifically, it is expected that for sojourners with higher intercultural adjustment self-efficacy, the effects of self-awareness on sojourner adjustment will become more positive. See Figure 1 for a graphical representation of the hypothesized relationship.

Figure 1: Hypothesized Moderating Effects of Self-Efficacy on the Relationship Between Self-Awareness and Sojourner Adjustment
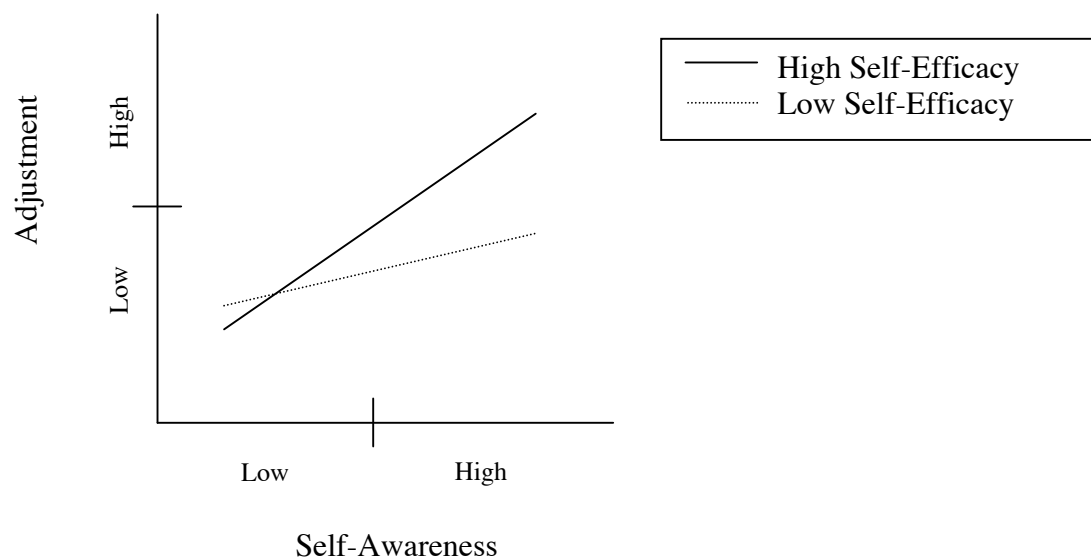
Chapter 3: Method

Participants

Participants were U.S. university students embarking on a sponsored semester or year-long study abroad program. A total of 103 pre-departure sojourners were secured as being willing to participate in the current study. They were the number of pre-departure students who completed the first wave of data collection after they had received an invitation to complete the survey. The invitation was sent on the author's behalf by study abroad personnel to ensure that students' privacy and anonymity would be maintained if they chose not to take part in the survey. The number of pre-departure students who received the invitation to participate is, thus, unknown. Not all of the first wave participants completed all waves of data collection; therefore, some of the participants' data were ineligible for use in the current analyses. Seventy-five participants completed the survey at Time 2, 64 participants completed Time 3, and 62 completed Time 4. Because participation by some respondents was not uniform during the entire survey time period, the number of students who responded to all four waves of data collection was 52.

In accordance with typical enrollment patterns in study abroad programs, the vast majority (82.7%; n=43) of the participants were in their third-year of undergraduate study. Two second-year undergraduates (3.8%), and 7 fourth-year undergraduates (13.5%) also took part in the survey. Participants ranged in age from 19 to 24 years, with the mean age being 20.1 years (SD=.89). Many U.S. universities were represented among the participants. Smith College represented the largest contingent of participants (36%; n=19), followed by the University of California at Santa Barbara (26.9%; n=14),

Middlebury College (17.3%; n=9), the University of California at Davis (7.7%; n=4), the

University of Maryland (5.8%; n=3), the University of Delaware (3.8%; n=2), and the

University of Akron (1.9%; n=1). The sample was biased toward women, with 49 women

(94.2%) and 3 men (5.8%) completing all waves of the survey. Most of the sample

identified as being heterosexual (76.9%; n=40). Other participants identified as bisexual

(11.5%; n=6), gay/lesbian (5.8%; n=3), unsure of their orientation (3.8%, n=2), and 1

participant labeled her- or himself as queer.

Participants were asked to indicate the income level of their parents. The range of

parental income for the current sample was from under $10,000 to over $100,000. One

participant (1.9%) indicated an income level of $0-9,999, 1 participant (1.9%) indicated

an income level of $10,000-19,999, 3 participants (5.8%) indicated an income level of

$20,000-29,999, 3 participants (5.8%) indicated an income level of $30,000-39,999, 3

participants (5.8%) indicated an income level of $40,000-49,999, 6 participants (11.5%)

indicated an income level of $50,000-59,999, 3 participants (5.8%)indicated an income

level of $60,000-69,999, 7 participants (13.5%) indicated an income level of $80,000-

89,999, 4 participants (7.7%) indicated an income level of $90,000-99,999, and 19

participants (36.5%) indicated an income level over $100,000. Two participants did not

provide information about income.

The current sample was largely White/Caucasian (85.6%; n=45). There were 2

Asian American/Pacific Islanders (3.8%), 1 Hispanic (1.9%), and 2 individuals (3.8%)

who identified as biracial who took part in the survey as well. An additional 2

participants (3.8%) identified as being foreign nationals of Nigerian and

Venezuelan/Italian descent. Respondents were asked to indicate their U.S. generation

status, where third generation status was defined as having U.S.-born parents and grandparents. Most indicated that they were third generation U.S. citizens (71.2%; n=37). Four participants (7.7%) indicated that they were second generation, 5 (9.6%) indicated that they were first generation, and 6 (11.5%) indicated that they were foreign born.

Participants traveled to 12 countries. Included among the countries of destination were France (7.7% of the sample), Germany (7.7%), Hong Kong (1.9%), Ireland (5.8%), Italy (17.3%), Japan (1.9%), Mexico (1.9%), Russia (1.9%), Spain (15.4%), Switzerland (5.8%), The Netherlands (5.8%), and the United Kingdom (26.9%). Participants also provided general information about their living arrangements in the country of destination. Most (59.6%; n=31) lived in residence halls or flats inhabited mostly by local nationals. Eight (15.4%) lived in residence halls or flats inhabited mostly by U.S. nationals. One-quarter of the participants (n=13) lived with families in a homestay arrangement. Respondents indicated the amount of time that they had lived in a country other than the U.S. The amount of time reported by participants ranged from 0 to 216 months. Though several participants indicated extensive time spent in a foreign country prior to study abroad, the median amount of time spent in another country was 2 months. Participants gave an indication of the relative amount of time they spent engaged in activities with individuals from the host culture. On a scale from 0% to 100% of the time, the mean amount of time spent with host nationals at Time 2 was 36.7%, at Time 3 was 39.8%, and at Time 4 was 39.2%. Paired sample t-tests found that the amount of time spent with host nationals did not significantly change across the times reported.

Measures

An important consideration in the current study is the effect that measurement has on levels of self-awareness. As Osberg (1985) reported, two considerations are important when considering the use of self-awareness measures. First, the length of the overall questionnaire in which the self-awareness measure is embedded should be recognized as a potential confound of the level of self-reported self-awareness. Osberg found that survey length is correlated with self-awareness scores, such that longer questionnaires are predictive of higher levels of self-awareness. Minimizing the overall length of the questionnaire was, therefore, adopted as a guiding principle in an effort to curtail the effects of this potential confound. Moreover, since potential participants were asked to complete the questionnaire a total of four times, utilizing a shorter questionnaire had an additional benefit of minimizing respondent fatigue.

The second consideration when using self-awareness measures is their relative position in the administration sequence. Osberg (1985) found that scores on a self-awareness measure administered at the end of a questionnaire were significantly higher than scores obtained from the same self-awareness measure that was presented first. Order of administration, thus, appears to be particularly important when utilizing measures of self-awareness. In the current study, the measure of self-awareness was fixed to the first position of the questionnaire for all participants, while all other measures were presented randomly. This was planned to minimize undesired confounding variance in self-awareness scores.

Psychological adjustment. The Mental Health Inventory (Davies, Sherbourne, Peterson, & Ware, 1988) was used to measure sojourners' level of psychological

adjustment. The MHI-5 consists of 5 items that measure psychological adjustment by tapping areas of behavioral dysfunction, feelings of psychological distress, and general positive affect. Respondents were asked to indicate the frequency of dysfunction, distress, or positive affect that they experienced in the past month. Item responses were obtained using a 6-point scale from 1 (none of the time) to 6 (all of the time). A sample item reads "How much of the time during the past month have you felt calm and peaceful?" Once all items were properly reversed coded and averaged, scores on the MHI-5 could potentially range from 1 to 6, where higher scores indicate a relative absence of distress and presence of well-being.

Initial study of the MHI-5 found a Cronbach's alpha of .84 (Ware, Snow, Kosinski, & Gandek, 1993), and subsequent studies have found similar levels of internal reliability (McCabe, Thomas, Brazier, & Coleman, 1996). In the current study the MHI-5 demonstrated adequate reliability with a range of Cronbach's alphas of .80 to .85 across the 4 waves of data collection. An 8-week test-retest correlation of .46 with people who were diagnosed with euthymic affect suggests that scores are only moderately stable over time (Leidy, Palmer, Murray, Robb, & Revicki, 1998). This level of variability is important given the current study's aims to uncover changing psychological adjustment. Validity for the measure is supported by high significant correlations with other measures of psychological adjustment (McCabe et al., 1996), and sensitivity to improved psychological functioning for people with depression after 8 weeks of therapy (Leidy et al., 1998). Moreover, Berwick et al. (1991) found that the MHI-5 was the most efficient measure, compared with 3 other measures of psychological adjustment, in correctly detecting the absence or presence of mental disorders as classified by the National

Institutes of Mental Health Diagnostic Interview Schedule (DIS, Robins, Helzer, Croughan, & Ratcliff, 1981). The MHI-5 outperformed the General Health Questionnaire (GHQ-30, Vieweg & Hedlund, 1983), the Somatic Symptom Inventory (SSI-28, Barsky, Wyshak, & Klerman, 1986), and a longer 18-item version of the MHI (MHI-18, Ware, Johnston, & Davies-Avery, 1979).

Sociocultural adjustment. The Sociocultural Adaptation Scale (SCAS, Ward & Kennedy, 1999) was used to measure sociocultural adjustment. The SCAS is variable in item length as it is intended to be adaptable for sojourners traveling to many different countries and under different circumstances. A set of 10 items has been used across all research utilizing the scale. An additional 4 items developed by the original authors that pertain to academic adjustment in a foreign country were selected for the current study. Thus, the current version of the SCAS was comprised of 14 items that assess cultural competency and behavioral adaptability of students in a foreign country. Item responses were obtained using a five-point scale ranging from 1 (no difficulty) to 5 (extreme difficulty). Scores on the SCAS were computed by calculating the mean score of the 14 items. Respondents were asked to rate the amount of difficulty experienced, for instance, in "making friends" or "understanding what is required of you at University." Though item composition varies slightly from study to study, Ward and Kennedy (1999) reported a mean coefficient alpha of .85 across 16 studies. In the current study, the SCAS demonstrated adequate reliability with a range of Cronbach's alphas of .81 to .87 across the 4 waves of data collection. Validity of the measure is supported by theory-consistent moderate positive correlations with psychological adjustment (Searle & Ward, 1990).

Intercultural adjustment self-efficacy. Participants' confidence in their ability to negotiate intercultural transitions was measured by the Intercultural Adjustment Self-Efficacy Scale (IASE; Brenner, 2001). The IASE consists of 27 items assessing respondents' confidence in their ability to manage eight aspects of an intercultural transition. Item responses were obtained using a 10-point scale ranging from "not at all confident" (0) to "completely confident" (9). A sample item reads "How confident are you in your ability to manage feelings of frustration with the overseas experience?" The total scale score previously demonstrated adequate internal consistency (Cronbach's alpha = .95). In the present study, IASE demonstrated adequate reliability with a range of Cronbach's alphas of .94 to .97 across the 4 waves of data collection. In terms of validity, the IASE also exhibited social cognitive theory-consistent relationships with interest in intercultural experiences and goal commitment regarding cultural immersion (Brenner, 2001).

During measure development, exploratory principal axis factor analysis with an oblique rotation revealed an eight-factor structure (Cronbach's alphas ranged from .83 to .91). Acculturate, Factor 1, composed of 4 items, assesses sojourner beliefs about their ability to adjust to the culture of the host country. A sample item from that factor asks participants to rate their confidence in their ability to "get accustomed to the local culture." Factor 2, Personal Care, composed of 4 items, asks about one's abilities to deal effectively with food and personal care needs in a foreign country. For instance, one sample item asks about one's ability to "prepare meals with available local ingredients." Logistics of the Country, Factor 3, containing 3 items, is made up of questions related to the use of basic financial, communication, and transportation systems. For this factor

participants are asked to rate their ability to "convert and use the local currency," among other items. Factor 4, Emergency Management, is composed of three items about managing unexpected negative events while overseas. A sample item from this factor asks about one's confidence to "deal with the loss of your passport or other important paperwork." Interpersonal Abilities, Factor 5, composed of 3 items, taps a sojourner's confidence about socializing with host nationals. For instance, participants are asked to rate their ability to "initiate relationships with local people." Factor 6, Psychological Strengths, is composed of four items about managing the emotional strains of life overseas. A sample item of that factor asks how one will "manage feelings of social rejection." Factor 7, Cultural Justification, containing 3 items, assesses a sojourner's belief in his or her ability to handle situations where his or her status as an American is met with negative reaction. For instance, sojourners are asked to rate their ability to "manage anti-American sentiment." Lastly, Educational Adaptation, Factor 8, composed of 3 items, taps a participant's ability to adjust to the local educational system. One item from this factor asks sojourners to rate their ability to "interact with local instructors."

Further evidence for the construct validity of the IASE subscales is found in a qualitative study of sojourner concerns that uncovered many of the same themes of adjustment (e.g., personal care, logistics of the country, emergency management, interpersonal abilities, psychological adjustment, and educational adaptation) (Ryan & Twibell, 2000). Although it is conceivable that each subscale may offer unique contributions to the study of intercultural transition, the current study was focused on the contributions of a more general intercultural adjustment self-efficacy, rather than detailed

examinations of the subscales. Therefore, a total scale score was computed by averaging the responses to the 27 items.

    Self-awareness. The private and public self-awareness subscales from a modified Situational Self-Awareness Scale (Govern & Marsch, 2001) was used to measure self-awareness. Private self-awareness is the attention one pays to internal, personal aspects of one's self (e.g., mood). Public self-awareness is the attention one gives to aspects of one's self that are presented to others (e.g., behaviors). The 9-item SSAS consists of 6 items assessing respondents' level of self-awareness (i.e., private and public) and 3 items assessing awareness of surroundings. Only the 6 self-awareness items were used. Item responses were obtained using a 7-point scale ranging from "strongly disagree" (1) to "strongly agree (7). The SSAS was modified from its original focus on the immediate present to a focus on the last month. Participants were instructed to indicate their level of agreement with each item. A sample item reads, "I have been conscious of my inner feelings." The SSAS private and public self-awareness subscales (3 items each) have previously demonstrated adequate internal reliability (Cronbach's alphas = .70 and .82, respectively), and a moderate level of intercorrelation (r = .31). In the current study, the SASS demonstrated adequate reliability with a range of Cronbach's alphas of .73 to .78 across the first 3 waves of data collection, and marginal internal consistency (alpha=.66) in the 4th wave. The mean of the 6 items, which was computed to yield a general index of self-awareness, can range from 1 to 7.

    The validity of the subscales has been supported by their ability to detect theory-consistent experimental manipulations of self-awareness. Participants' scores on the private self-awareness subscale were significantly higher than their scores on the public

self-awareness subscales when they completed the measure in the presence of a small mirror and a memory recall condition. Conversely, participants' scores on the public self-awareness subscale were significantly higher than their scores on the private self-awareness subscale when they completed the measure in the presence of a large mirror and video camera. These results are consistent with theory suggesting that these manipulations cause private or public self-awareness, respectively (Buss, 1980).

Demographics. Participants were asked to provide information about their age, year in university, parents' income, race/ethnicity, sex, and sexual orientation. They also were asked to indicate in which country they were completing their study abroad, which study abroad office had sponsored their program, and to specify whether they were completing a semester or year-long program. Participants also were asked to indicate the total number of months they had previously traveled or lived overseas. All of the measures can be viewed in Appendix A.

Procedure

The questionnaire and all accompanying information (e.g., informed consent, instructions for incentive opportunities) were hosted on a University web server, and were created with web authoring software. Participants' responses to the questionnaire were sent via the Internet as an electronic mail message and a data file. Only the primary researcher had access to the password-protected data. While it is conceivable that respondents' data could have been intercepted during transmission between their computer terminal and the University web server, that possibility is unlikely. Furthermore, respondents submitted no personally identifying information. Respondents only were asked to identify their responses with a predetermined identification number;

they did not provide information that could be used by others to identify them even if their data had been surreptitiously intercepted.

Access to participants was gained by contacting university-based study abroad sponsoring agencies. Agency involvement was solicited through an email message. Once an agency agreed to participate, the agency was provided with text of an introduction to the survey and was asked to forward it to their students. They forwarded the introductory text via email 1-2 weeks before their students were scheduled to embark on their study abroad program. The introductory text contained a brief overview of the study's purposes and the incentives available to them if they were to complete the study in its entirety. Participants were notified that they would be asked to complete the questionnaire a total of four times. The complete introduction to the survey is reprinted in Appendix B.

Interested potential participants first were directed to an informed consent page. See Appendix C for the complete text of the informed consent. Once they agreed to the informed consent they clicked on an "I Agree. Take Me to the Survey" link which forwarded them to the questionnaire for wave 1 (Time 1). At the top of the questionnaire participants were asked to type an easily remembered four-digit identification number of their choosing, their first and last initial, and an email address that could be used to contact them for reminders for subsequent waves of data collection. After typing in that information they were presented with demographic questions, the Situational Self-Awareness Scale, the Intercultural Adjustment Self-Efficacy scale, the Mental Health Inventory-5, and the Sociocultural Adaptation Scale. The Situational Self-Awareness Scale was always presented first to all participants. The other measures were presented

to participants in a randomized order. At the bottom of the questionnaire page participants were asked to click a button to submit their responses.

After participants had been in their country of destination for four weeks they were notified via email of the second wave of surveying. See Appendix E for the text of the reminder email. If a participant had not responded within 5 days of the reminder, she or he was sent another notification (see Appendix F for text). At that time (Time 2) and all subsequent times (Time 3 and 4), participants completed all questionnaires, minus the demographic questions. For Times 2, 3, and 4, the following question was added to the questionnaire, "Please indicate the percentage below that best describes the amount of time that you spend engaged in activities (e.g., studying, socializing, etc.) with people from the host country in which you are studying." Participants had the option of selecting 0%, 10%, 20%, 30%, 40%, 50%, 60%, 70%, 80%, 90%, or 100%. Participants received an email one month from the second phase of surveying (8 weeks into their study abroad program) and one month from the third wave of surveying (12 weeks into their study abroad program) notifying them that it was time to complete the questionnaire again. If a participant completed all aspects of the survey, he or she would have responded to the measures a total of four times, except for the demographic questions, which only were presented once. Those who participated in all four waves of data collection had the option to specify whether they wanted to be entered into a drawing for a gift certificate. Ten prizes of $50 gift certificates were given to 10 randomly chosen participants.

Chapter 4: Results

Latent growth modeling (LGM) with factor mean estimation was the primary

method of analysis. LGM was chosen because of the assumptions that it makes about the

nature of growth. Not only can LGM be used to analyze data collected over time, with

the addition of procedures used to estimate the mean intercept and mean slope of the

function of change (e.g., factor means estimation), researchers can meaningfully describe

the rate of growth found in the data (Lawrence & Hancock, 1998). Researchers utilizing

this approach can test for change over time and describe the initial factor mean of the

variable of interest and specify the change in mean scores that one would expect at any of

the measured points in time.

Compared to other statistical methods commonly used to examine growth over

time, LGM does not assume that all individuals change in the same exact manner. It only

assumes that individuals' growth follows the same functional form (e.g., all participants

change in some linear fashion), but it does not assume that all individuals change at the

same rate over time (e.g., some individuals may grow slower, faster, or even in an

opposite direction) (Lawrence & Hancock, 1998). Moreover, since individuals change

over time at different rates, the interrelationship between individuals' scores on measured

variables consequently will change, altering the strength of correlations among the

variables across time. Though this violation of the sphericity assumption is problematic

for other commonly used methods for analyzing data collected at multiple points in time

(e.g., repeated measures analysis of variance), LGM is not based on this assumption

(Lawrence & Hancock, 1998).

Furthermore, the sample size of the current study is adequate for LGM analysis. Traditional estimates of structural equation modeling (of which LGM is a specific subtype) suggest that a minimum of 5 participants per estimated parameter are needed (Bentler & Chou, 1987). As can been seen in the Results, 9 parameters were estimated in the study's most complex LGM models, thus, requiring a minimum of 45 participants. Though the sample is adequate as specified by the 5:1 ratio of participants to parameter guideline, concern with smaller sample sizes in LGM were addressed in the current study.

A recent study on the effect of sample size on LGM was used in determining that the current sample was adequate for the purposes of investigating the research questions and hypotheses in the current study. Hamilton, Hancock, and Gagné (2003) studied the effects that sample size has on rates of model convergence and parameter bias. Their results suggest that for samples of 50 participants the average convergence rate for LGM was 96% when data were collected over 4 time points. In other words, with the current sample size (N=52) and 4 waves of data, there was only a 4% chance that the proposed models would fail to converge and provide interpretable information. Secondly, and more importantly, they found that with sample sizes of 50 participants, parameter biases were essentially meaningless and nonexistent. That is, with the current sample size, provided that the models converge and show good fit to the data, the parameter estimates produced by the models are trustworthy, and can be treated as highly accurate estimates of the theoretical population parameters that the model is attempting to fit.

With the relatively small sample size, it was important to make an informed decision about which fit indexes to utilize when evaluating the models proposed by the

current study. Foremost, a tandem fit index criteria was adopted for the current study. When evaluating the current models, the Comparative Fit Index (CFI) and Standardized Root Mean Squared Residual (SRMR) were used together to minimize the chances of rejecting an appropriate model and retaining an inappropriate model. A CFI equal to or greater than .96 and a SRMR equal to or less than .10 has been suggested to be highly effective in minimizing both Type I and Type II error rates in samples of under 250 participants (Hu & Bentler, 1999). Therefore, this two-index method served as a guideline for evaluating the present models.

The choice of the CFI as one part of the tandem criteria was not arbitrary, even though many different fit indexes combinations have been proposed (e.g, Hu & Bentler, 1998; 1999). It is a member of a group of fit indexes, incremental fit indexes, that have been shown to demonstrate relatively small amounts of sensitivity to bias introduced by sample size (Hu & Bentler, 1998). Specifically, the CFI has demonstrated very low levels of sensitivity to sample size, even when compared to other incremental fit indices in Monte Carlo studies (Jackson, 2001), and showed almost no mean fluctuation when compared across sample sizes of 20 to 1000 (Tanguma, 2001).

In short, the use of tandem criteria and the inclusion of the CFI as one of the fit indexes minimized the undesirable effects on model fit that can occur with relatively small sample size. Provided that the hypothesized models survived convergence failures (e.g., failure of SEM to converge on solution before reaching maximum allowed iterations) and improper solutions (e.g., negative residual variance), the criteria adopted here allow the latent growth models and their constituent parameter estimates to be viewed with a very high level of confidence for the current sample.

Examination of the proposed research questions and hypotheses was accomplished in a three-step procedure utilizing the statistical software package EQS 5.8 (Bentler, 1985). First, univariate growth models tested for the existence of systematic growth for each variable of interest. This allowed for an examination of Research Questions 1a, 1b, 2, and 3. In LGM, growth is represented by two factors for each variable of interest. They are represented as a latent intercept factor and a latent slope factor.

In the second step, the latent growth factors (two possible intercept factors, two possible slope factors) of psychological adjustment and sociocultural adjustment were regressed on the variable of intercultural adjustment self-efficacy at Time 1, provided that systematic change was found in psychological adjustment and sociocultural adjustment. This allowed for a test of Hypotheses 1a and 1b.

In the third step, path modeling, utilizing the mean of repeated measures as variables, was used to examine the viability of a predictive model where intercultural adjustment self-efficacy moderates the relationship of self-awareness to psychological and sociocultural adjustment. These analyses tested Hypothesis 2a and 2b. An intercorrelation matrix indicating the four variables of interest at each of the four waves is presented in Table 1. Means, standard deviations, and internal consistency estimates of the variables also are presented.

Table 1: Intercorrelations, Means, and Standard Deviations of Four Waves of Psychological Adjustment, Sociocultural Adjustment, Intercultural Adjustment Self-Efficacy, and Self-Awareness.

	MHI-5 T1	MHI-5 T2	MHI-5 T3	MHI-5 T4	SCAS T1	SCAS T2	SCAS T3	SCAS T4	IASE T1	IASE T2	IASE T3	IASE T4	SSAS T1	SSAS T2	SSAS T3	SSAS T4
MHI-5 T1	(.80)															
MHI-5 T2	0.23	(.83)														
MHI-5 T3	0.06	0.60	(.85)													
MHI-5 T4	0.10	0.41	0.74	(.82)												
SCAS T1	0.37	0.09	0.02	0.03	(.85)											
SCAS T2	0.12	0.54	0.29	0.25	0.26	(.87)										
SCAS T3	-0.003	0.44	0.44	0.44	0.11	0.74	(.81)									
SCAS T4	-0.03	0.26	0.35	0.37	0.29	0.71	0.72	(.84)								
IASE T1	0.08	-0.05	0.02	0.03	0.28	0.24	0.26	0.46	(.95)							
IASE T2	0.27	0.44	0.31	0.27	0.40	0.69	0.53	0.57	0.50	(.94)						
IASE T3	0.04	0.26	0.39	0.41	0.26	0.60	0.65	0.73	0.58	-0.76	(.95)					
IASE T4	0.01	0.22	0.31	0.33	0.18	0.45	0.48	0.57	0.51	0.52	0.76	(.97)				
SSAS T1	-0.24	-0.29	0.04	-0.02	-0.16	0.10	0.32	0.35	0.33	0.14	0.34	0.22	(.79)			
SSAS T2	0.05	-0.55	-0.18	-0.14	-0.11	-0.21	-0.08	-0.01	0.13	-0.06	0.05	0.03	0.58	(.73)		
SSAS T3	0.14	-0.38	-0.04	-0.13	0.06	-0.08	0.01	0.05	0.15	0.07	0.12	-0.05	0.44	0.73	(.76)	
SSAS T4	-0.15	-0.45	-0.11	-0.11	-0.08	-0.13	-0.01	0.06	0.10	-0.05	0.12	0.10	0.62	0.76	0.70	(.64)
MEANS	4.51	4.46	4.57	4.73	4.59	4.07	4.16	4.32	6.40	6.53	7.05	7.34	5.38	5.90	5.84	5.68
SD	.70	.76	.75	.65	.42	.60	.45	.44	1.34	1.22	1.16	1.22	.99	.71	.72	.62

Note: Cronbach's alphas are indicated in parentheses on the diagonal. T1, T2, T3, and T4 represent Time 1, Time 2, Time 3 and Time 4 measurements, respectively.

MHI-5 = Mental Health Indicator SCAS = Sociocultural Adjustment Scale IASE = Intercultural Adjustment Self-Efficacy SSAS = Situational Self-Awareness Scale

Research Question 1a: Does sojourner psychological adjustment change in a systematic manner?

A univariate growth model was tested for psychological adjustment according to the method described by Lawrence and Hancock (1998). A two-factor growth model was chosen to consist of an intercept and slope factor for psychological adjustment (see Figure 2). Factor loadings for the four observed measures (i.e., Time 1 through 4 measures of psychological adjustment) were fixed to 1 for the intercept. This was done since it was assumed that sojourners' psychological adjustment at any given time was a function of their own initial value, or intercept. This allowed for the intercept to be "locked in" to psychological adjustment, permitting the slope to describe change beyond the initial level of psychological adjustment. The factor loadings for the observed measures were fixed to 0 and 1, respectively, for the first two loadings for the slope. This served to create a reference for growth on which to interpret the estimated path coefficients for the third and fourth factor loadings for the slope (factor loadings for Time 3 and Time 4 in Figure 2). Factor loadings for Time 3 and Time 4 were not fixed since it was desired to estimate the growth of psychological adjustment, instead of testing a predetermined trajectory (e.g., linear, curvilinear).

The addition of what EQS refers to as "V999" to the model allowed for factor means and variances to be estimated (Lawrence & Hancock, 1998). The parameters from (a) V999 and the intercept factor and (b) V999 and the slope factor represent the factor mean for the intercept and slope, respectively. Thus, the parameter from V999 to the intercept provides an estimate of sojourners' initial psychological adjustment, and the parameter from V999 to the slope provides an estimate of the mean change in

psychological adjustment across time. Additionally, estimates of the variance around the mean intercept and slope factors were calculated (disturbance, or error, around the factors). Lastly, the parameter between the variances of the mean intercept and slope factors allowed the intercept and slope of psychological adjustment to covary (through the disturbances). This parameter estimated the extent to which changes in sojourners' psychological adjustment is related to their initial psychological adjustment.

The proposed model of change in psychological adjustment produced an improper solution (e.g., the variance of one of the error terms was forced to be zero). These results suggest that no model of change in psychological adjustment is tenable for the current sample. Hence, sojourner psychological adjustment does not appear to change in a systematic manner. None of the resulting fit indices and parameter estimates are reliable, nor are they interpretable. Though not a model with good fit, the described parameters of LGM with latent mean estimation for psychological adjustment can be viewed in Figure 2. The relative stability of psychological adjustment can be viewed in Figure 3, a graphical representation of the sample's mean psychological adjustment scores at Times 1, 2, 3, and 4. Note these means in Figure 3 are the sample's means, and are not derived from the LGM solution.

Figure 2: Structural Model of Latent Growth of Psychological Adjustment
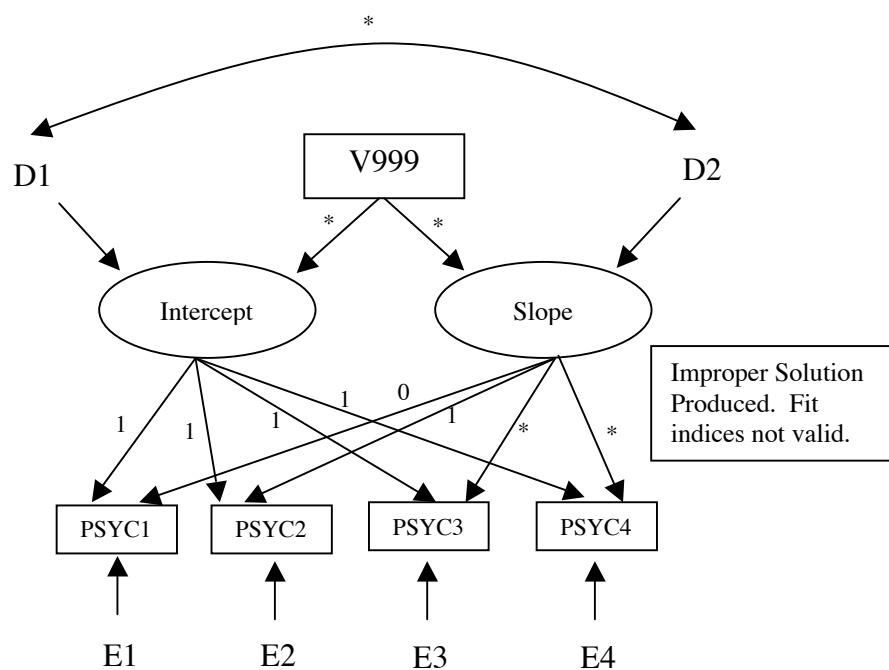
Note: PSYC1, PSYC2, PSYC3, and PSYC4 denote psychological adjustment measured at four one-month intervals.

Figure 3: Psychological Adjustment Sample Means
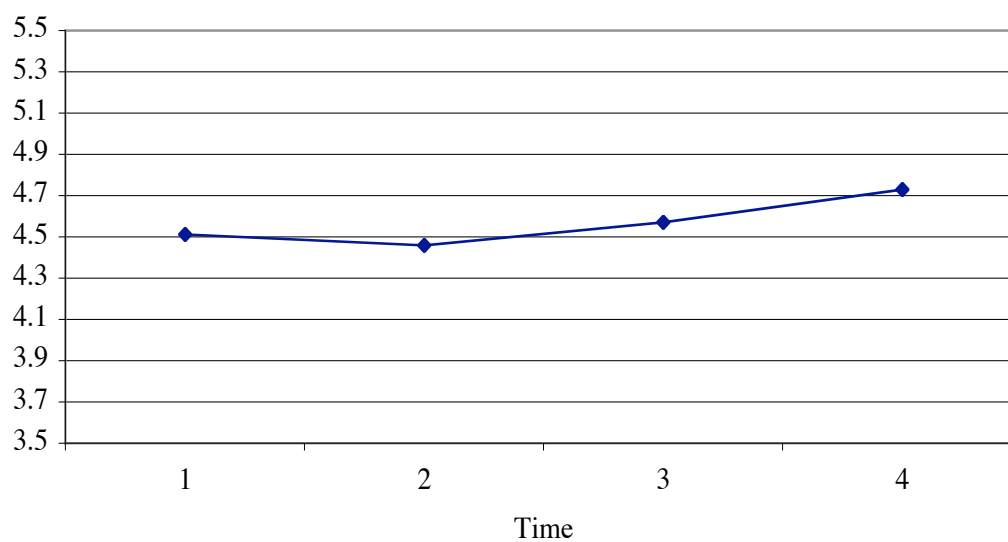
Research Question 1b: Does sojourner sociocultural adjustment change in a systematic

manner?

A model of implied initial positive growth (factor loadings from the slope factor to sociocultural adjustment at Time 1 were set to 0, and were set to 1 for sociocultural adjustment at Time 2) was first examined for goodness of fit, resulting in lack of model convergence. As seen in Figure 4, an alternative model was tested whereby initial negative growth was postulated (e.g., the first two slope factor loadings were set to 1 and 0, respectively). This model of change in sociocultural adjustment demonstrated adequate fit to the data (CFI=.97; SRMR=.07). Examination of the factor loadings for the latent slope factor shows that sociocultural adjustment decreased one month into a sojourn (predetermined estimate of 0), then increased at Time 3 (factor loading of .209) and Time 4 (factor loading of .439) for this sample. These factor loadings are used when computing the latent mean scores at Times 1-4.

Examination of the model suggests that the latent mean score was 4.603 just prior to departure. This was calculated by adding .540, the product of 1 (the factor loading from the slope factor to the measure of sociocultural adjustment at Time 1) and .540 (the parameter estimate from V999 to the latent slope factor), to 4.063 (the model's baseline factor mean – Time 2 in this model; this is the parameter estimate from V999 to the intercept factor). The latent mean decreased to 4.063 at Time 2. In this model, the latent mean for Time 2 is the same as the model's baseline latent mean (as seen in the parameter estimate from V999 to the intercept factor). This is so because Time 2's factor loading for the slope factor to Time 2 sociocultural adjustment was set to 0, indicating that its mean is the model's baseline mean plus 0 adjustment. To calculate Time 3 and

Time 4 latent means the same procedure was used. For Time 3, the baseline mean

(4.063) was adjusted upward by .113, resulting in a latent mean of 4.176. This

adjustment was calculated by multiplying the factor loading from the slope factor to Time

3 (.209) by .540 (the parameter estimate from V999 to the slope factor). Similarly, for

Time 4, the baseline mean (4.063) was adjusted upward by .237, resulting in a latent

mean of 4.3. This adjustment was calculated by multiplying the factor loading from the

slope factor to Time 4 (.439) by .540 (the parameter estimate from V999 to the slope

factor). The latent mean scores are graphed in Figure 5 for easier interpretation. In sum,

the results indicate that sojourner sociocultural adjustment changes in a systematic

manner.

It is worth noting here that, although the model (and all subsequent latent growth

models) is presented such that parameter estimates that differ significantly from zero are

indicated in bold in accordance with traditional methods of model representation,

statistical significance from zero is not necessarily useful and meaningful information

with these models. The model's parameter estimates are proportional to the metric of the

model, which was set by the predetermined factor loadings of 1 and 0 (or whatever

predetermined factor loadings may be used in subsequent models) for the slope factor's

first 2 factor loadings. That is, the difference between 1 and 0 determines the parameter

estimates in proportion to the predetermined slope factors as they are optimized by EQS.

For the model depicted in Figure 4, the factor loadings from the slope factor to

sociocultural adjustment at time 3 and 4 happen to be statistically significant from zero,

but within the context of the current analyses this information is not meaningful or

important to model interpretation. Likewise, the parameter estimates from (a) V999 to

the intercept factor (4.063) and (b) V999 to the slope factor (.540) also happen to be different from zero. Again, these parameter estimates are tied proportionally to the metric set forth by the slope factor's 2 first factor loadings, making their significance from zero interesting, but not necessary for interpretation.

Figure 4: Structural Model of Latent Growth of Sociocultural Adjustment.
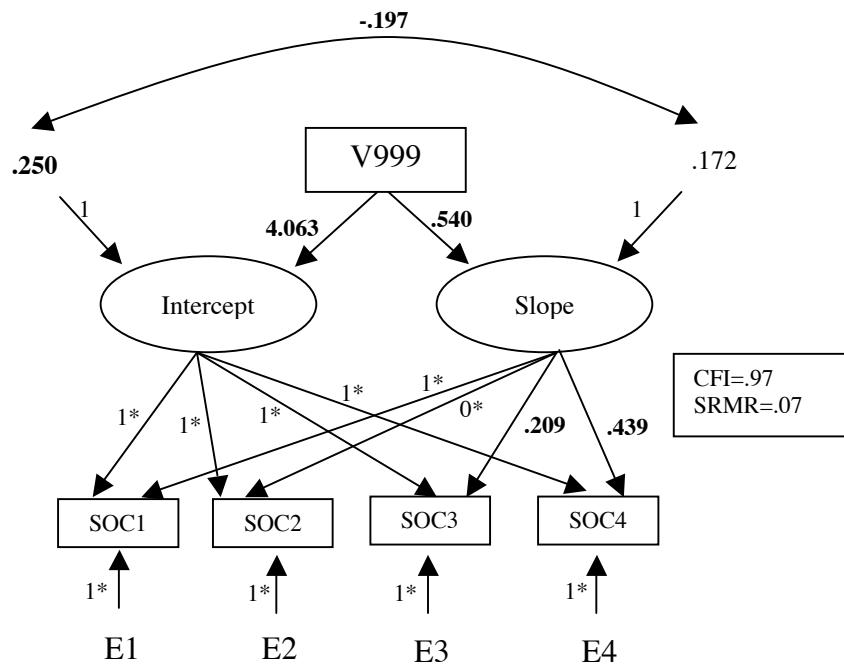
Note: SOC1, SOC2, SOC3, and SOC4 denote sociocultural adjustment measured at four one-month intervals.   Bold parameter estimates indicate statistical difference from zero. Parameter estimates denoted with an asterisk were predetermined parameter estimates.

Figure 5: Latent Growth of Sociocultural Adjustment Factor Means
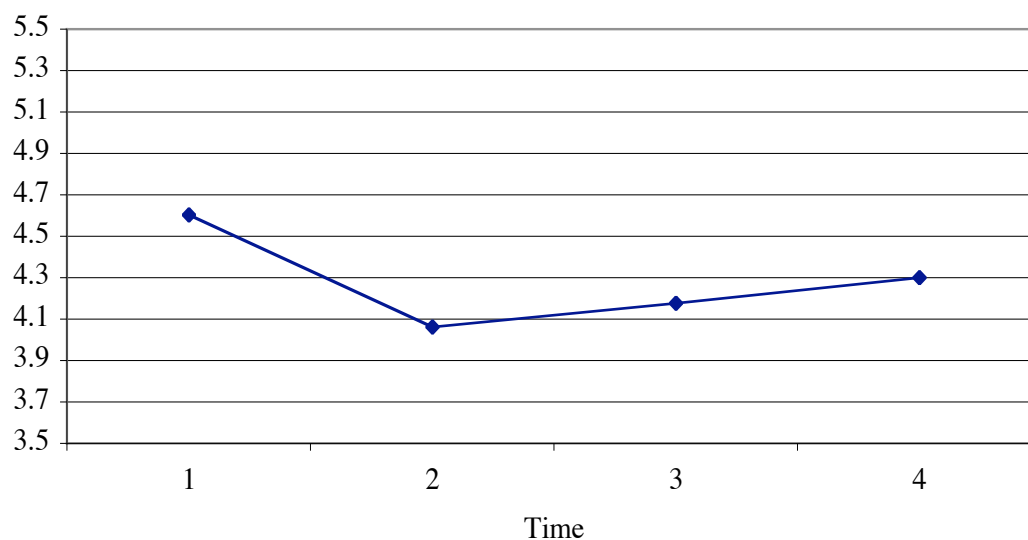
Note: The sample SD for sociocultural adjustment is .48. The latent mean change between T1 and T2 is -.540, between T2 and T3 is .113, and between T3 and T4 is .124

Research Question 2: Do sojourner intercultural adjustment self-efficacy beliefs change in a systematic manner?

A model of implied initial positive growth (factor loading from the slope factor to intercultural adjustment self-efficacy at Time 1 was set to 0, and was set to 1 for self-efficacy at Time 2) was examined for goodness of fit, resulting in indications of good fit (CFI=.96; SRMR=.098). As seen in Figure 6, an examination of the factor loadings for the latent slope factor shows that intercultural adjustment self-efficacy increased one month (Time 2) into the sojourn (predetermined loading of 1), then increased further at Time 3 (factor loading of 5.55) and Time 4 (factor loading of 7.919) for this sample.

Examination of the model suggests that the latent mean of intercultural adjustment self-efficacy was 6.41 immediately prior to departure (Time 1). The factor means of intercultural adjustment self-efficacy at Times 2, 3, and 4 were computed by adding the appropriate adjustment for growth as specified by the model. This resulted in

latent mean scores of 6.527, 7.059, and 7.337, respectively. The latent means for

intercultural adjustment self-efficacy are graphed in Figure 7. These result indicate that

sojourner self-beliefs change in a systematic manner.

Figure 6: Structural Model of Latent Growth of Self-Efficacy.

Note: SE1, SE2, SE3, and SE4 denote intercultural adjustment self-efficacy measured at four one-month intervals. Bold parameter estimates indicate statistical difference from zero. Parameter estimates denoted with an asterisk were predetermined parameter estimates.

Figure 7: Latent Growth of Intercultural Adjustment Self-Efficacy
Factor Means
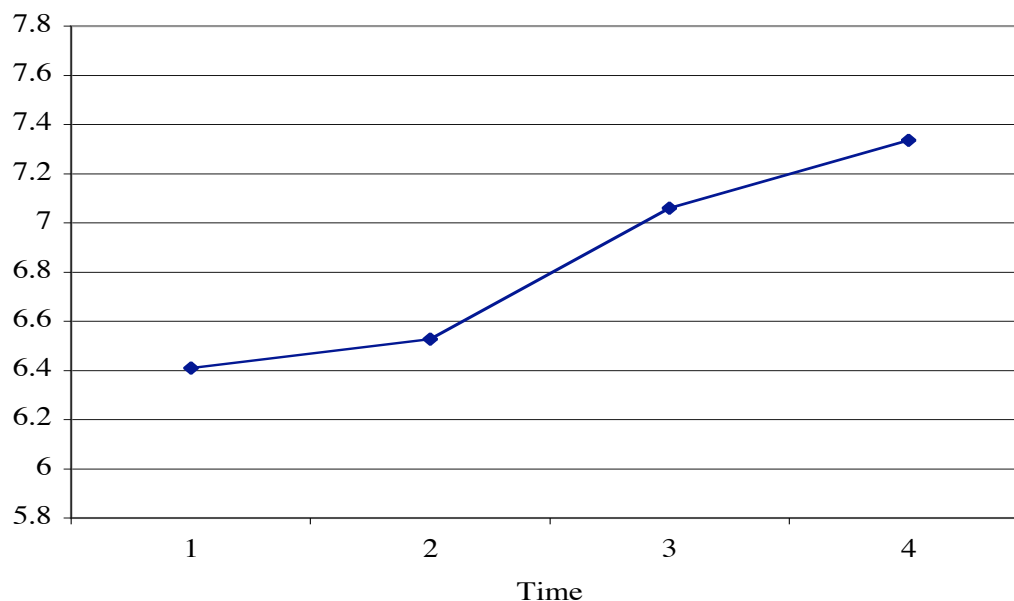
Note: The sample SD for intercultural adjustment self-efficacy is 1.24. The latent mean change between T1 and T2 is .117, between T2 and T3 is .532, and between T3 and T4 is .277.
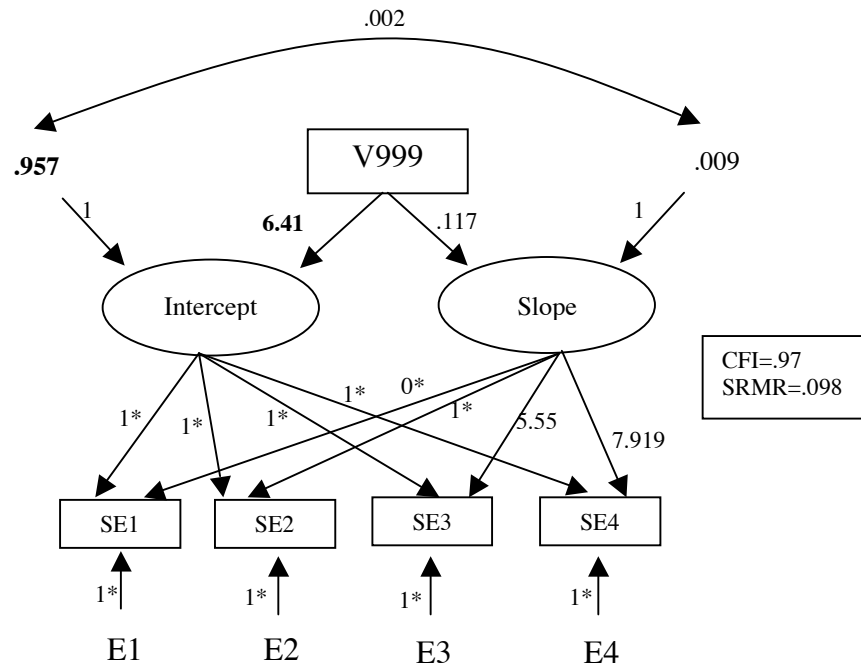
Research Question 3: Does sojourner self-awareness change in a systematic manner?

As with the previous analysis, a model of implied initial positive growth was examined for goodness of fit, resulting in indications of good fit (CFI=.997; SRMR=.06). Figure 7 shows that self-awareness increased one month (Time 2) into the sojourn (predetermined factor loading of 1), then decreased at Time 3 (factor loading of .927) and decreased further at Time 4 (factor loading of .517) for this sample.

Examination of the model suggests that the latent mean of self-awareness was 5.382 immediately prior to departure. The factor means of self-awareness at Times 2, 3, and 4 were computed by adding the appropriate adjustment for growth as specified by the model. This resulted in latent mean scores of 5.896, 5.858, 5.675, respectively. Figure 8

is a graphical representation of the latent means for self-awareness. In, sum these

findings show that sojourner self-awareness does change in a systematic manner.

Figure 8: Structural Model of Latent Growth of Self-Awareness.
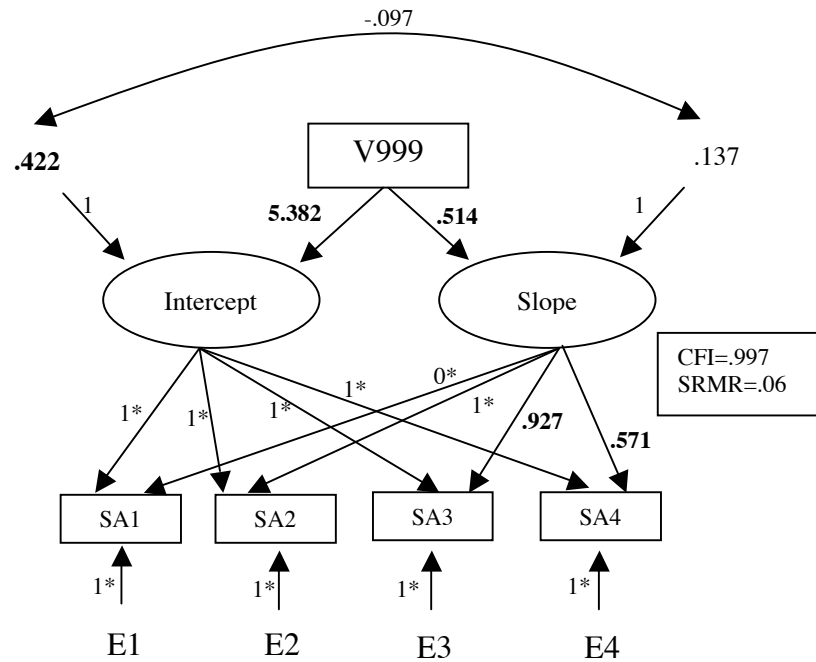
Note: SA1, SA2, SA3, and SA4 denote sojourner self-awareness measured
at four one-month intervals. Bold parameter estimates indicate statistical
difference from zero. Parameter estimates denoted with an asterisk were
predetermined parameter estimates.

Figure 9: Latent Growth of Self-Awareness Factor Means
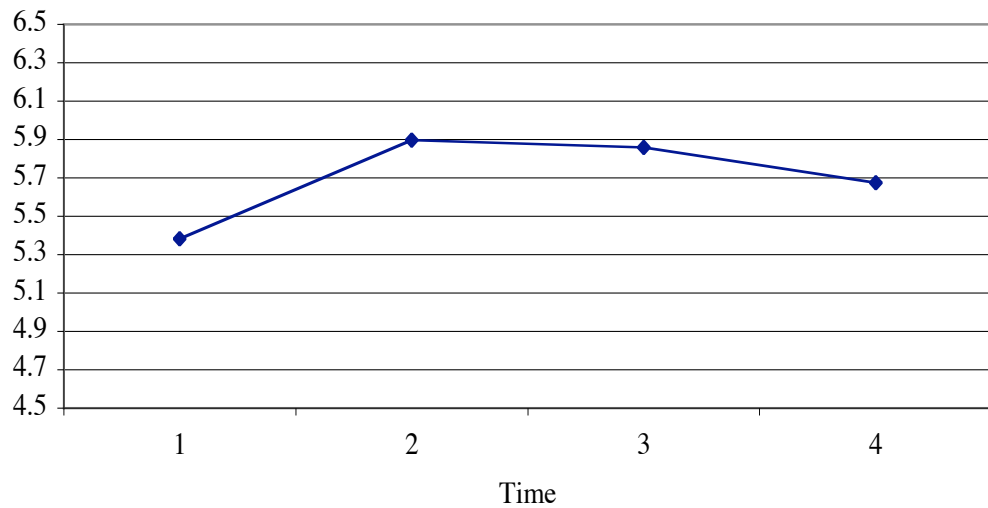
Note: The sample SD for self-awareness is .76. The latent mean change between T1 and T2 is .514, between T2 and T3 is -.037, and between T3 and T4 is -.183

Hypothesis 1a: Higher intercultural adjustment self-efficacy positively affects change in sojourner psychological adjustment.

This hypothesis was not tested as no model of systematic change in psychological adjustment converged (see Research Question 1a), thus negating the need to investigate whether intercultural adjustment self-efficacy could change its growth.

Hypothesis 1b: Higher intercultural adjustment self-efficacy positively affects change in sojourner sociocultural adjustment.

To examine whether intercultural adjustment self-efficacy influenced the developmental trajectory of sociocultural adjustment, the sociocultural growth factors (intercept and slope) were regressed on intercultural adjustment self-efficacy at Time 1, as shown in Figure 10. The resulting model provides a test of whether participants' initial level of intercultural adjustment self-efficacy affects the growth of sociocultural

adjustment over time. Most importantly, for the purposes of testing Hypotheses1b, the regression parameters from the intercultural adjustment self-efficacy variable to the intercept and slope factors estimate the effects of initial intercultural adjustment self-efficacy beliefs on (a) the starting sociocultural adjustment values and (b) the rate of change in sociocultural adjustment over time, respectively. Unlike previous models, the statistical significance of these parameters is meaningful, as they measure whether self-efficacy's relationship to the intercept and slope factors is significantly different from zero. For the current model this information is necessary for interpretation.

Four starting values for the slope factor were utilized in estimating the model. These factor loadings (1, 0, .21, and .44) were drawn from earlier analysis of the change of sociocultural adjustment. The overall model demonstrated adequate fit (CFI=.97; SRMR=.08). Furthermore, the parameter estimate from intercultural adjustment self-efficacy at Time 1 to the intercept factor was significant ($p<.05$). This parameter estimate suggests that for each 1-point increase in pre-departure intercultural adjustment self-efficacy, one could expect a .108 increase in initial levels of sociocultural adjustment. This relationship has significance for the overall levels of sociocultural adjustment one would expect to observe over time, as is graphed in Figure 11. Those who start with higher levels of intercultural adjustment self-efficacy – though they follow the same average trajectory – do not experience as low a sociocultural score during a sojourn as compared to their less self-efficacious peers. The results, therefore, provide support for Hypothesis 1b.

Figure 10: Structural Model of Effect of Self-Efficacy at Time 1 on
Latent Growth of Sociocultural Adjustment.

-.194

.229

Self-Efficacy at Time 1

.155

1

.108   .012   1

Intercept   Slope

CFI=.97
SRMR=.08

1*   1*
1*   1*   1*   0*   .21*   .44*

SOC1   SOC2   SOC3   SOC4

1*   1*   1*   1*

E1   E2   E3   E4
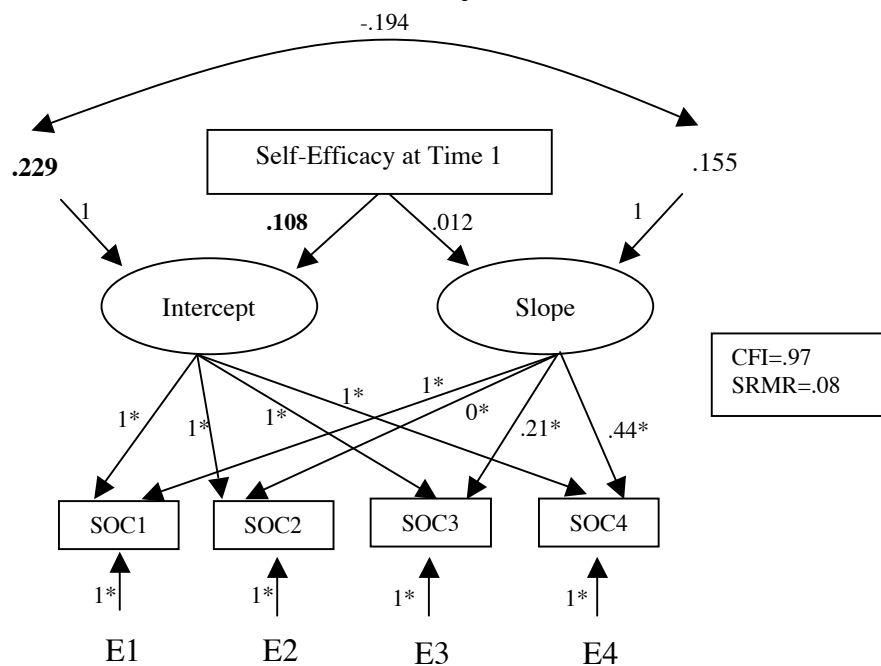
Note: Bold parameter estimates indicate statistical difference from zero. Parameter
estimates denoted with an asterisk were predetermined parameter estimates.

Figure 11: Effects of Self-Efficacy at Time 1 on Latent Growth of
Sociocultural Adjustment
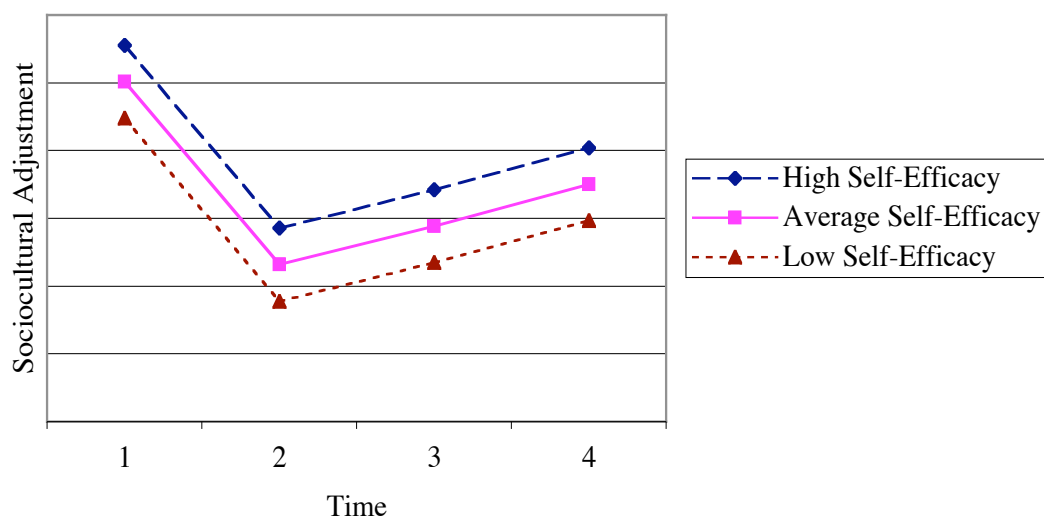
Hypothesis 2a: Intercultural adjustment self-efficacy beliefs moderate the relationship between self-awareness and sojourner psychological adjustment, such that for those with high self-efficacy beliefs, the relationship between self-awareness and psychological adjustment will become more positive as self-awareness increases.

Hypothesis 2a was tested by evaluating a path model where the four waves of data were averaged to produce mean repeated-measure variables of intercultural adjustment self-efficacy, self-awareness, and psychological adjustment (see Figure 12). A product term of intercultural adjustment self-efficacy by self-awareness was computed for inclusion in the model. In addition to averaging across the four waves of data and computing a product variable, the variables were mean centered. This was done so that collinearity between the product variable and its constituent components would be minimized, providing a better chance of detecting interaction effects (Ping, 1996).

The path model demonstrated a reasonable fit to the data (CFI=.96; SRMR=.07). However, the interaction term did not relate in a statistically significant manner to psychological adjustment suggesting that (a) intercultural adjustment self-efficacy and self-awareness each predict psychological adjustment over and above the interaction term, but (b) intercultural adjustment self-efficacy does not moderate the relationship of self-awareness to psychological adjustment for this sample. Hypothesis 2a is, therefore, not supported. Unlike the latent growth models where statistical significance is relative to a predetermined aspect of the slope factor, statistical significance in this, and the next path model, is meaningful and necessary for interpretation.

Figure 12: Standardized Path Analysis Model of Moderating Effects of Intercultural Adjustment Self-Efficacy on the Relationship Between Self-Awareness and Psychological Adjustment.
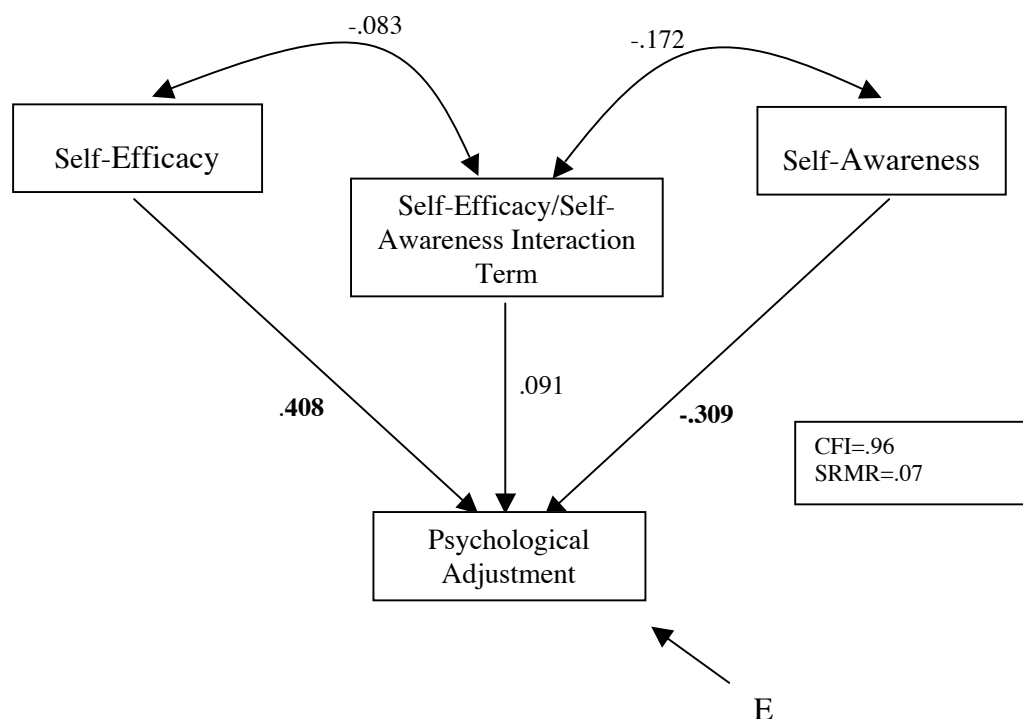

Hypothesis 2b: Intercultural adjustment self-efficacy beliefs moderate the relationship between self-awareness and sojourner sociocultural adjustment, such that for those with high self-efficacy beliefs, the relationship between self-awareness and sociocultural adjustment will become more positive as self-awareness increases.

A similar procedure was used to test the moderating hypothesis for sociocultural adjustment. The path model for sociocultural adjustment (see Figure 13) demonstrated adequate fit to the data (CFI=.99; SRMR=.07). Unlike the previous test of moderation, this model found that intercultural adjustment self-efficacy moderates the relationship between self-awareness and sociocultural adjustment. This is seen in the significant

relationship between the interaction term and sociocultural adjustment ($p<.01$). To aid in interpreting the results, a graph was produced with the predicted mean outcomes for 4 conditions. These conditions included low intercultural adjustment self-efficacy/low self-awareness, low intercultural adjustment self-efficacy/high self-awareness, high intercultural adjustment self-efficacy/low self-awareness, and high intercultural adjustment self-efficacy/high self-awareness. The low condition was defined as 1 standard deviation below the mean intercultural adjustment self-efficacy and self-awareness scores for this sample. The high condition was defined as 1 standard deviation above the mean intercultural adjustment self-efficacy and self-awareness scores for this sample. Based on the regression equation that resulted from the path model and utilizing the low or high scores for self-awareness and intercultural adjustment self-efficacy, it was possible to derive a predicted score of sociocultural adjustment for the 4 conditions. The predicted sociocultural scores for the four conditions are presented in the graph in Figure 14. Intercultural adjustment self-efficacy appears to moderate the relationship such that higher levels of self-efficacy are predictive of a positive relationship between self-awareness and sociocultural adjustment, whereas relatively lower levels of intercultural adjustment self-efficacy are predictive of a negative relationship between self-awareness and sociocultural adjustment.

Figure 13: Standardized Mean Centered Path Analysis Model of Moderating Effects of Intercultural Adjustment Self-Efficacy on the Relationship Between Self-Awareness and Sociocultural Adjustment.
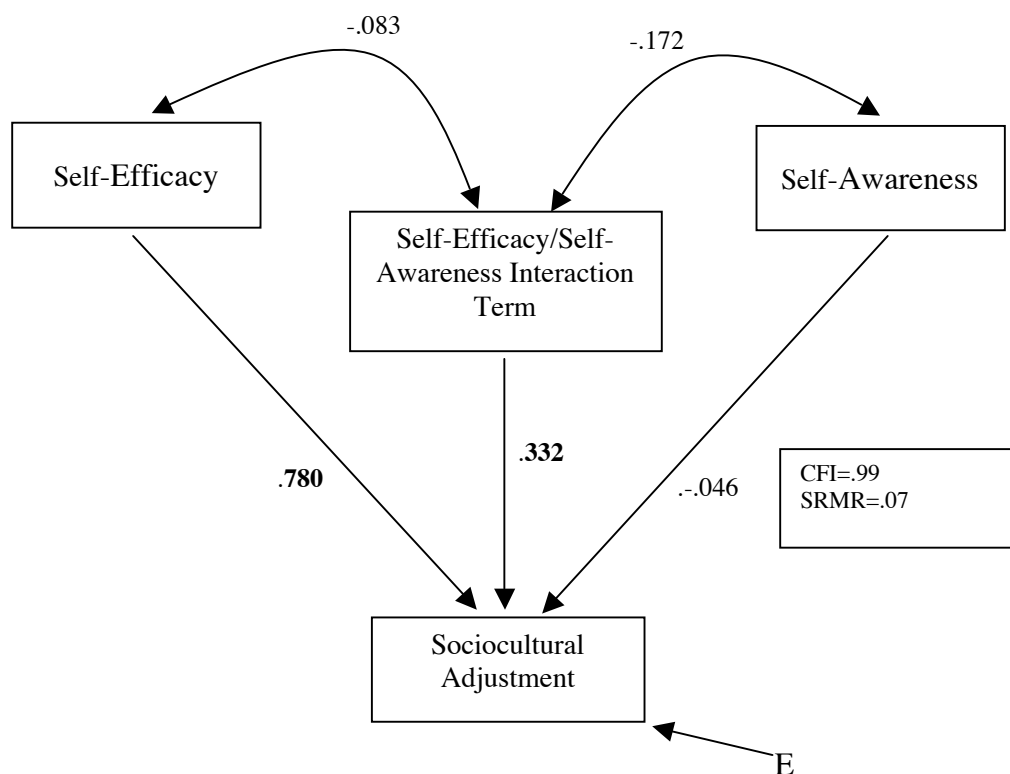

Figure 14: Moderating Effects of Self-Efficacy on the Relationship Between Self-Awareness and Sociocultural Adjustment
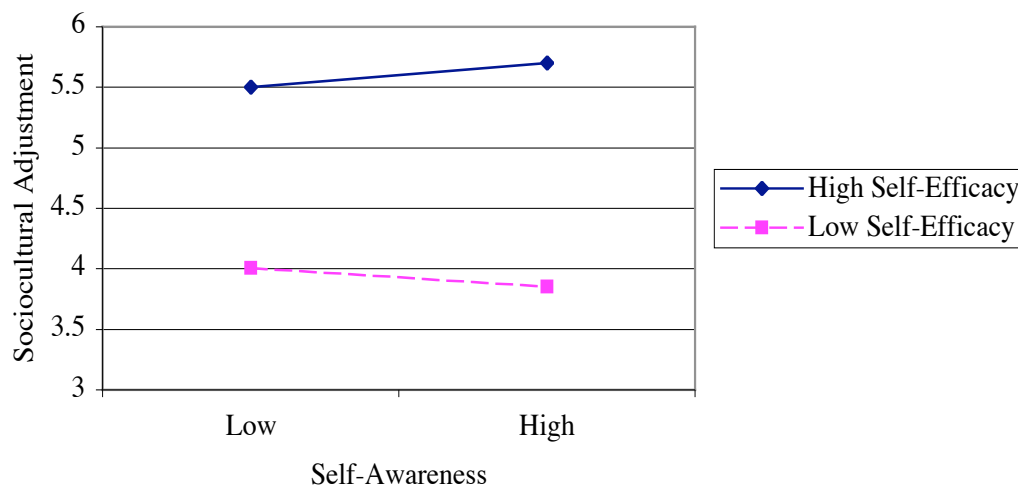
Chapter 5: Discussion

The findings from this study are the first identified empirical evidence of systematic change in U.S. sojourner adjustment during the course of a study abroad program. The findings represent changes over time of adjustment experienced by individuals as they live and learn in a foreign culture. For sociocultural adjustment, the latent means of participants' scores approximate a growth curve similar to the long sought U-curve hypothesis (Lysgaard, 1955). The results suggest that sociocultural adjustment decreases sharply when sojourners are first immersed in a new cultural milieu, but that upward and steady improvement in sociocultural adjustment is the norm for the current participants.

The decrease in sociocultural adjustment reflects sojourners' self-reported initial difficulty adapting to new cultural norms as they relate to management of everyday tasks and academic expectations. According to the current data, participants apparently begin to adapt to these differences and start improving in their ability to cope with them within approximately two months of entry into a new culture. By the third month they improve further, and, if the trajectory were to hold, they would, in time, re-attain a sociocultural adjustment score similar to their pre-departure score. These scores may reflect sojourners' increasing ability to recognize and rely on the resources available to them in their host country. The social and financial resources afforded to university students in foreign countries are significant and may underlie the relatively quick recovery in sociocultural scores seen in the current sample. It may also be related to a stabilization of social identity processes (Ellemers et al., 2002) where continued exposure to a foreign

culture allows individuals to regain their ability to utilize contextual feedback to attain a renewed sense of their social position and ability to cope in the environment.

The same finding of systematic change, however, cannot be reported of psychological adjustment. No identifiable systematic pattern of growth could be found for the current sample utilizing LGM methods. It seems as though, on average, participants remained relatively constant in their self-appraisals of psychological functioning during their sojourns. The mean psychological adjustment with which sojourners entered the country of destination was approximately the same level of mean adjustment they reported three months into their sojourn. If this accurately reflects the underlying phenomenon, psychological adjustment appears relatively unchangeable during the first three months of a sojourn.

Unchanging psychological adjustment in the sample may be related to the fact that study abroad program participants eagerly volunteer for the opportunity to live and study in a foreign country. Knowing that their move to a foreign country is temporary may impact how psychologically involved, and therefore, psychologically effected they become. If this sample's self-reported percentage of time involved with host nationals is any indication (approximately 38% of the time), the sample, as a whole, was not well integrated into the host country.

Compared to sociocultural adjustment, it may be that psychological adjustment is less sensitive to immediate change of environment, and that systematic variability in the latter might only be found in studies examining a longer period of time, such as the more than 6 year time frame studied by Hsiao-Ying (1995). It could be that longer periods of residence in a foreign country are needed to change in psychological adjustment. Then

again, psychological adjustment may not have fluctuated on the whole in the current sample due to the effects of self-selection. Only students who feel as though they are psychologically equipped to embark on an emotionally demanding transition to a foreign country may elect to complete a study abroad program. Moreover, study abroad program advisors select students who they believe in their professional judgment to be capable of adapting well to the intercultural and educational demands of studying at a foreign institution. These selection pressures may have had some bearing on the current finding that psychological adjustment did not change for the current sample

Alternatively, the current measure of psychological adjustment, the MHI-5, may not be sensitive enough to the vagaries related to transitioning to life in a foreign culture. Use of the MHI-5 in this study's non-clinical population may have contributed to the lack of findings for changes in psychological adjustment. It might be that the measure is more suited for use in detecting the relative presence or absence of psychopathology (McCabe et al., 1996), and is not sensitive to changes in mental functioning experienced by less disturbed or clinically-defined "normal" populations. In other words, it may be that the measure is less sensitive to detecting relatively small changes in mental functioning for people in the "normal" population, and is a better at ascertaining gross distinctions between "normal" populations and clinically-defined "disturbed" populations. Other measures of psychological adjustment should be utilized with data collection over time and LGM to ascertain whether they uncover stable or fluctuating psychological adjustment.

Much of the discussion about the lack of systematic change in psychological adjustment should be regarded tentatively. Though LGM was not able to find *systematic*

change in psychological adjustment for the sample, it does not necessarily mean that individuals did not change over time on this variable. In trying to understand the lack of convergence of the growth model for psychological adjustment, the data were plotted so that each participant's four waves of data were represented on a distinct line. Examination of the data in this way showed that there was an extremely high level of variation of trajectories in the sample. It may be that the growth of psychological adjustment was so variable across individuals that LGM was unable to arrive at an acceptable solution. That is, LGM may not have been able to compute a solution within the given statistical parameters so that a functional form (e.g., linear, curvilinear) could be discerned. This clearly requires further investigation and is a highly intriguing finding. Several immediate questions arise from plotting the data like this. One of the most important questions is why is psychological adjustment so highly variable in this sample, and is this similar to a non-sojourning sample.

An important finding in the current study is the difference between the growth patterns of the two types of adjustment. Identifying changing sociocultural adjustment and stable psychological adjustment underscores the importance of conceptualizing and measuring the two phenomena separately. The current data demonstrate that they likely do not share the same growth trajectory, which further supports the notion that sojourner adjustment is best conceptualized as a multidimensional construct (Ward, 1996).

The current study also contributes to understanding of other aspects of how sojourners change as a result of transitioning to a foreign culture. Identifiable patterns of growth were found for both intercultural adjustment self-efficacy and for self-awareness. The current study was the first examination of the sensitivity of a recently created

measure of intercultural adjustment self-efficacy (Brenner, 2001) to register change in in-vivo self-efficacy beliefs. These data seem to suggest that the measure is capable of detecting changes experienced by sojourners. Moreover, the results show that the relatively high latent mean of 6.41for the sample just prior to departure increased steadily and significantly during participants' sojourn. The data do not appear to reflect a concern that the participants over-estimated their intercultural adjustment self-efficacy beliefs prior to departure. This would have been reflected in a downward trend in the latent means after arrival in their country of destination. The data also suggest that much growth in confidence to handle the transition to a new culture occurred during the second month of their sojourn. It is notable that this increase in intercultural adjustment self-efficacy occurred at the same time that sociocultural adjustment began to improve for sojourners, and at the same time that their level of self-awareness begins its downward trend.

Self-awareness in the current sample exhibited a positive curvilinear growth pattern, much like an inverted "U". Growth of sojourners' levels of self-awareness was strongest between pre-departure and one month into the sojourn. Measurements at the second and third months of life in a foreign culture appear to show that levels of self-awareness began to taper off. However, the latent means of self-awareness remain at a comparatively high level at the end of three months.

These results are the first empirical evidence of Adler's (1975) contention that self-awareness is raised as a result of transitioning to life in a foreign culture. He postulated that self-awareness plays a pivotal role in the changes in adjustment experienced by sojourners. These results appear to suggest that sojourners do, in fact,

change in the amount of time in which they spend in self-focused attention states. Unlike earlier attempts to study the phenomenon (Harrison et al., 1996; Kealey, 1989), which utilized personality-like traits of self-consciousness and self-monitoring as indicators of self-awareness, situational self-awareness seems to be sensitive enough to detect changes in individuals' levels of self-focused attention as a result of an intercultural transition.

Prediction of Sojourner Adjustment

The data collection methods used in the current study produced intriguing findings related to how sojourners change across time. The results are informative when trying to construct estimates of how sojourners react and adapt to transitions experienced in foreign cultures. The current study also examined the predictive ability of intercultural adjustment self-efficacy and self-awareness. Specifically, intercultural adjustment self-efficacy's ability to predict subsequent levels of adjustment was examined, as was the contention that it moderates the relationship between sojourner self-awareness and adjustment.

The results provide encouraging evidence of the role played by intercultural adjustment self-efficacy in building predictive models of sojourner adjustment. Pre-departure intercultural adjustment self-efficacy was examined for the effect that it has on the growth of sociocultural adjustment. As can be seen in Figure 11, intercultural adjustment self-efficacy affects the trajectory of sociocultural adjustment such that higher levels of self-efficacy are predictive of higher levels of adjustment. Those who begin a sojourn with higher levels of confidence in their abilities to navigate an intercultural transition enter with relatively higher levels of sociocultural adjustment and maintain those comparatively higher levels of adjustment across the sojourn. Higher intercultural

adjustment self-efficacy beliefs do not appear to change the functional form of the adjustment pattern (e.g., those with low, average, and high self-efficacy beliefs all experience the same approximate "U" curve of adjustment), but they appear to be predictive of the relative levels of adjustment experienced by sojourners.

These results are the first empirical evidence of the predictive ability of context-specific self-efficacy beliefs in foretelling the adjustment of sojourners. Unlike cross-sectional research in this area (e.g., Harrison et al., 1996), these results provide estimates of the temporal precedence of self-efficacy over sociocultural adjustment. They clearly suggest that higher intercultural adjustment self-efficacy beliefs were important in predicting the relative difficulty experienced by sojourners in adapting to the cultural and educational challenges of their country of destination. Previous research has almost exclusively relied on measures of generalized self-efficacy (which are stable, personality-like traits) when studying sojourner adjustment (e.g., Jerusalem & Mittag, 1997). Context-specific self-efficacy beliefs are more modifiable, potentially making them an important intervention target.

Beyond this direct impact on sociocultural adjustment, intercultural adjustment self-efficacy beliefs were found to play an important moderating role in the relationship between self-awareness and sociocultural adjustment. Previous research on the relationship of self-awareness to adjustment is contradictory, with some studies suggesting that heightened self-awareness has positive adjustment outcomes, and other studies suggesting it has negative adjustment outcomes (Silvia & Duval, 2001). It was proposed here that intercultural adjustment self-efficacy may be a moderating variable that partially explains these differences, and the results support this hypothesis, at least

for sociocultural adjustment. For the current sample, sojourners with high levels of intercultural adjustment self-efficacy benefited from higher levels of self-awareness. For them, increasingly higher levels of self-awareness were related to increasingly higher scores on the sociocultural adjustment measure. These results might be evidence that sojourners with much confidence in their abilities to transition to a new culture were able to benefit from the increased attention they paid to their selves in the foreign context. It may be that they were better able to successfully adapt their behaviors to the demands of the situation given their higher levels of confidence and self-focused attention.

Self-awareness proved to be much less helpful for sojourners who reported less confidence in their abilities to handle the intercultural transition. For these sojourners, heightened levels of self-awareness were related to lower levels of sociocultural adjustment. It appears as though self-focused attention for these people was related to negative appraisals of their adaptation in a foreign country. In the absence of higher levels of intercultural adjustment self-efficacy, the increased self-awareness may have evoked more attention to one's failures and inadequacies. Regardless of the exact mechanism by which self-efficacy moderates the relationship between self-awareness and sojourner adjustment, these results are the first known empirical indication that intercultural adjustment self-efficacy beliefs can modify the valence (e.g., positive or negative) of self-reported adjustment appraisals for sojourners.

Future Research

The methods and analysis techniques utilized in the current study were shown to be useful in detecting systematic changes in sojourner characteristics and uncovering significant relationships among the variables. Although intercultural transition research

remains logistically difficult, web-based data collection used in the current study facilitated data collection over time. Thus, despite the inherent complexities of this type of research, technical advances in web-based data collection make it possible to pursue further meaningful and important research in this area of inquiry.

The intercultural transitions literature has long been criticized for its atheoretical nature (Furnham & Bochner, 1986). The approach used here suggests that it may be time to abandon the old "shotgun" approach in favor of constructing hypotheses and theoretically-based predictive models. Although exploratory studies have their use, it appears as though adherence to theory – even theory adapted from outside the intercultural transition literature per se – would allow researchers to better understand the complex changes in sojourner experiences, and how to go about predicting those changes with an adequate level of precision.

Beyond the general benefits of continuing to utilize web-based data collection over time and LGM statistical analysis, several specific areas of inquiry could greatly extend the current findings. Most readily, it appears that extending the time period of examination for change over time would garner a more thorough opportunity to study changing sojourner experiences and outcomes. It would allow researchers to ascertain if and how the growth pattern deviates from the ones found currently (e.g., does self-awareness continue to decrease throughout a sojourn, does intercultural adjustment self-efficacy continue to increase, and at what point does it appear to level off?). Expanded time periods also may allow researchers the opportunity to detect systematic changes in psychological adjustment, which were not found in the 3-month time frame studied here. A longer time frame may be necessary to result in psychological fluctuations created by

changes in social identity processes (Ellemers et al., 2002) The re-entry period after a

sojourn could be included as well. Studies with longer time periods also would allow for

replication and extension of the current results. Though a problematic predictor in past

studies (Church, 1982), accounting for personality variables (e.g., positive or negative

affect, optimism, pessimism) within the context of the studied models could result in

even greater predictive efficiency.

The current data are based on the experience of university students embarking on

study abroad programs. Further research is needed on sojourner adjustment in the

context of business and government sectors. In those situations, many of the results

found in the current study might generalize, but other factors might influence the growth

of adjustment. For instance, sojourners' dedication to furthering the corporate or political

mission of their firms may impact their ability to successfully adjust to life and work in a

foreign country. Studies in the business sector have shown that allegiance to the parent

company versus the local company differs among employees and is speculated to impact

workplace adjustment, but has not yet been studied for its relationship to emotional

adjustment (Van Oudenhoven, Van Der Zee, & Van Kooten, 2001). Other adjustment

outcomes also might be important to study with these individuals such as implementation

of job-related goals, increased productivity, or furthering international cooperation.

Study of periods of transition and adjustment in settings outside of the

international sphere may also benefit from the techniques and theory developed here. For

instance, first year college students' experience could be improved if it were better

understood how they adjust to university life during their first year of life away from

home. Likewise, increased understanding of the systematic ways in which newly

employed individuals adjust to life in a new workplace or corporate culture could facilitate the school-to-work transition.

The transition of individuals who face particular challenges of cultural transition could be studied in similar ways. The lives of religious and ethnic/racial minority group members, for example, could be conceptualized using an adjustment model similar to the one proposed here. It would be interesting to examine the lives of African-Americans from the perspective of the transition process – including psychological and sociocultural adjustment, self-efficacy, and self-awareness – when faced with working or living in a predominantly Euro-American environment. The same could be said of many groups of minorities in the U.S., including sexual orientation identity minorities or differently-abled individuals (e.g., people with hearing impairments interacting with the hearing world).

Extending this adjustment model to those populations would necessitate modifications to account for the basic differences in level of personal control (e.g., sojourners choose their minority status by voluntarily moving to a new country, whereas marginalized groups do not), degree of status permanence (e.g., "sojourner" status is temporary, unlike relatively permanent minority status), and degree of knowledge of new culture (e.g., minority status members often have extensive knowledge of the majority culture, whereas sojourner are generally unaware of cultural norms of the host country).

It also is important that future research on the study abroad experience be conducted with adequate samples of men as well as women. Though study abroad programs have feminized (Ludwig, 2000), the current study's participants were largely female, thus limiting the generalizability of the findings to women. Similarly, further study is needed to examine whether the experiences of different student groups (e.g.,

minority status race/ethnicity members, sexual orientation identity minority members, religious minority members) are invariant, in structural terms, as compared to the models and results discussed in the current study. Likewise, further research of the utility and validity of the intercultural adjustment self-efficacy measure (general score) is suggested, as is research relating to the invariance of predictive efficiency of its subscales.

Study and design of theory-based interventions for study abroad students also would provide rich data. Studies that examine how pre-departure training influences adjustment would add greatly to the understanding of the cause and effect relationship between some of the variables studied here. Beyond that consideration, the service provided to students would likely be positive and aid in their enjoyment of their study abroad experience.

Implications for Counseling Interventions

The results of the current study have some obvious implications for intervening with sojourners. Pre-departure training programs that delineate the difference between psychological and sociocultural adjustment would help sojourners to understand that their upcoming process of adjustment is multifaceted. Training that focuses pre-departure sojourners on sociocultural adjustment as one of their most immediate post-arrival concerns appears warranted. Furthermore, citing the familiar "U"-curve hypothesis (Lysgaard, 1955), as it applies to sociocultural adjustment, has initial support from the current findings. Educating study abroad students on the sociocultural and academic expectations that will face them in their country of destination may ease their transition in and of itself, but it also may raise their intercultural adjustment self-efficacy for handling some of the difficulties that may come their way.

It also appears that sojourners should have the opportunity to anticipate, learn about, and discuss the rapid increase in self-focused attention that may accompany intercultural transitions. It may prove enlightening for sojourners to grasp that a seemingly inherent aspect of a sojourn is an increase in the amount of time they spend paying attention to aspects of the self. If they were to be made aware that many sojourners experience heightened self-awareness as a result of intercultural transition, they may be better able to normalize and, perhaps, shorten their experience of self-focused attention. It may be useful for pre-departure sojourners to be educated that the increase in self-focused attention may be the result of extraneous contextual factors (e.g., different cultural norms), rather than some deficit on their part. Sojourners may find that heightened self-awareness ultimately leads to growth and self-discovery, especially for those who could reframe the heightened self-awareness as an opportunity to learn about themselves and grow from an examination of their beliefs and values   The ability to positively utilize heightened intercultural adjustment self-awareness appears linked to feeling more efficacious about the upcoming transition; therefore, programs that are designed to raise pre-departure intercultural adjustment self-efficacy seem like a potentially effective means of impacting sojourners' subsequent adjustment process.

Inviting speakers to talk about their successful, but varied, adjustment process may help students cultivate their intercultural adjustment self-efficacy beliefs vicariously, or help to persuade them that they already possess many of the skills necessary for a positive international transition. Furthermore, framing the intercultural transition process in the larger context of life transitions may help pre-departure students to draw upon their

existing competencies and previous transition successes and skills when contemplating their likelihood of having a successful study abroad program.

It also is interesting to speculate how the current findings may bear on the instruction of counselor multicultural competence. In the context of the current study, heightened self-awareness when combined with heightened intercultural adjustment self-efficacy appears to have a positive effect on participants' experience of life in a foreign culture. Effective multicultural training might be best brought to fruition by marshalling heightened self-focus as a cultured-being in the context of elevated multicultural counseling self-efficacy beliefs. Qualitative studies have shown that beginning counselors tend to be most affected by experiential activities that raise their level of multicultural self-awareness (Heppner & O'Brien, 1994), which may share similarities to foreign culture immersion of study abroad. It is interesting to note that Heppner and O'Brien reported that trainees appeared most concerned with their efficacy related to applying their new knowledge and attitudes. From the point of view of the current study, aiding in the development of multicultural counseling self-efficacy may be important in the context of heightened self-awareness engendered by experientially-based multicultural training. If this type of self-efficacy were raised while self-awareness is higher than normal, then trainees might be able to better, and more thoroughly, utilize information that comes from self-examination of cultural biases and assessment of one's level of multicultural development that influences clinical practice. On the other hand, if heightened multicultural self-awareness is paired with relatively low levels of multicultural counseling self-efficacy, then trainees may discontinue self-examination. Worse yet, they may eschew multiculturally competent intervention because the

culturally-stimulated heightened self-awareness (brought about by the formulation of a culturally-informed intervention) is experienced as a noxious reminder of one's feeling of inefficacy.

Limitations

As with any study there are limitations to the current investigation. Studies conducted with structural equation modeling techniques, of which latent growth modeling is an extension, are limited in that they fairly rigidly specify the relationships between the latent variables. Although latent modeling capitalizes on shared variance, and minimizes error associated with measurement, the techniques may make the results appear to be a perfect reproduction of reality. It is imperative that researchers remind themselves that structural equation modeling can only support (or not support) the plausibility of a model. It does not confirm that a model is the true representation of reality. Additionally, it is important for researchers to be cognizant that alternate structural models may exist that account for the observed data just as well as, if not better than, one's proposed model. Latent modeling techniques offer much to researchers, but they are not without limitations.

The current findings can be most readily generalized to other study abroad program participants. Several aspects of the current sample should be kept in mind when ascertaining to whom and under what circumstances these findings are most relevant. The participants in the current study mostly were White, around 20 years old, female, heterosexual, from high income families, and most traveled to Western European countries. Beyond these identifiable aspects of the current sample, other aspects of the current sample limit generalizability. U.S. study abroad participants undergo

intercultural transition under a unique set of circumstances. Some of the more important aspects of these circumstances are that study abroad participants move temporarily to a new country because they voluntarily chose to do so. They move with relatively small concern for their financial security, and are working under the assumption that they are, at most, on a year-long limited absence from the U.S. Moreover, most do not have to contend with the challenge of seeking social networks in a foreign country since most study abroad programs and host universities provide built-in opportunities for engaging in social activities.

Other limitations of the current study include the fact that the participants self-reported their level of adjustment, which may or may not be an accurate reflection of their true adjustment process. Finally, though the numbers of participants in the current study were appropriate for the statistical methods employed, they represent a small sample of the overall numbers of students embarking on a study abroad program. Even though much confounding variance was minimized by the repeated measures design and analysis, it is important not to generalize the findings beyond what current theory and the sample's characteristics can support.

Appendix A

Mental Health Indicator

How much of the time during the **past month**…

	None of the time	A little of the time	Some of the time	A good bit of the time	Most of the time	All of the time
… have you been a very nervous person?	1	2	3	4	5	6
… have you felt calm and peaceful?	1	2	3	4	5	6
… have your felt down-hearted and blue?	1	2	3	4	5	6
… have you been a happy person?	1	2	3	4	5	6
… have you felt so down in the dumps that nothing could cheer you up?	1	2	3	4	5	6

Sociocultural Adjustment Scale

The following questions ask about the amount of difficulty you have experienced **during the last month** with the following activities. There are no right or wrong answers. Please answer honestly and candidly.

	no difficulty	slight difficulty	moderate difficulty	great difficulty	extreme difficulty
1. Making friends	1	2	3	4	5
2. Using the transport system	1	2	3	4	5
3. Making yourself understood	1	2	3	4	5
4. Getting used to the pace of life	1	2	3	4	5
5. Going shopping	1	2	3	4	5
6. Going to social events/gatherings/functions	1	2	3	4	5
7. Worshipping in your usual way	1	2	3	4	5
8. Talking about yourself with others	1	2	3	4	5
9. Understanding jokes and humor	1	2	3	4	5
10. Dealing with someone who is unpleasant/cross/aggressive	1	2	3	4	5
11. Living away from family members overseas/independently from your parents	1	2	3	4	5
12. Understanding what is required of you at university.	1	2	3	4	5
13. Coping with academic work.	1	2	3	4	5
14. Expressing your ideas in class	1	2	3	4	5

Intercultural Adjustment Self-Efficacy

The following questions ask about your beliefs in your abilities to do certain things effectively while on a study abroad program in a foreign country. Rate yourself according to your expected capabilities at the <u>beginning of your time abroad</u> (e.g., in the first month). There are no right or wrong answers. Please answer honestly and candidly.

How confident are you in your ability to do the following things effectively?

	Not Confident At All			Somewhat Confident				Completely Confident		
1. socialize with the local people.	0	1	2	3	4	5	6	7	8	9
2. convert and use the local currency.	0	1	2	3	4	5	6	7	8	9
3. handle derogatory American jokes.	0	1	2	3	4	5	6	7	8	9
4. use the local public transportation system.	0	1	2	3	4	5	6	7	8	9
5. handle feelings of disorientation.	0	1	2	3	4	5	6	7	8	9
6. buy health and hygiene products at a local store.	0	1	2	3	4	5	6	7	8	9
7. act according to local customs.	0	1	2	3	4	5	6	7	8	9
8. order food at a local restaurant.	0	1	2	3	4	5	6	7	8	9
9. resolve a dispute with an instructor.	0	1	2	3	4	5	6	7	8	9
10. expand your understanding of the foreign country's political system, society, and culture.	0	1	2	3	4	5	6	7	8	9
11. interact with local instructors.	0	1	2	3	4	5	6	7	8	9
12. deal with the loss of your passport or other important paperwork.	0	1	2	3	4	5	6	7	8	9
13. use the local phone system.	0	1	2	3	4	5	6	7	8	9
14. discuss political views different from your own.	0	1	2	3	4	5	6	7	8	9
15. manage feelings of frustration with the overseas experience.	0	1	2	3	4	5	6	7	8	9
16. adapt to different educational practices.	0	1	2	3	4	5	6	7	8	9
17. manage feelings of social rejection.	0	1	2	3	4	5	6	7	8	9
18. prepare meals with available local ingredients.	0	1	2	3	4	5	6	7	8	9
19. exhibit appropriate social behavior.	0	1	2	3	4	5	6	7	8	9

20. interact with local students.	0	1	2	3	4	5	6	7	8	9
21. replace a lost or stolen train ticket.	0	1	2	3	4	5	6	7	8	9
22. get accustomed to the local culture.	0	1	2	3	4	5	6	7	8	9
23. help a friend find medical attention for a serious health concern.	0	1	2	3	4	5	6	7	8	9
24. handle feelings of loneliness.	0	1	2	3	4	5	6	7	8	9
25. manage anti-American sentiment.	0	1	2	3	4	5	6	7	8	9
26. initiate relationships with local people.	0	1	2	3	4	5	6	7	8	9
27. shop for food at a local market or grocery.	0	1	2	3	4	5	6	7	8	9

Situational Self-Awareness Scale

Please respond to each statement based on how you have felt during the last month. There are no right or wrong answers – just be honest.

	Strongly disagree	Moderately disagree	Disagree	Neutral	Agree	Moderately agree	Strongly agree
1. I have been conscious of my inner feelings	1	2	3	4	5	6	7
2. I have been concerned about the way I present myself	1	2	3	4	5	6	7
3. I have been self-conscious about the way I look	1	2	3	4	5	6	7
4. I have been reflective about my life	1	2	3	4	5	6	7
5. I have been concerned about what other people think of me	1	2	3	4	5	6	7
6. I have been aware of my innermost thoughts	1	2	3	4	5	6	7

Background Questionnaire

I am interested in gathering a little information about your background. Your responses to the following questions will be held in strict confidence. Please print your answers clearly.

1.   Sex: _____(1) Male   _____(2) Female

2.   Age:_____

3.   Which of the following comes closest to describing your race or ethnic group?

    _____(1) Black or African-American

    _____(2) Latino/a or Hispanic

    _____(3) White or European-American

    _____(4) Asian/Pacific Islander-American

    _____(5) Native American

    _____(6) Middle Eastern-American

    _____(6) Other_____
                       (please specify)

4.   What is your sexual orientation:

    _____(1) Heterosexual

    _____(2) Homosexual

    _____(3) Bisexual

    _____(4) Unsure

    _____(6) Other_____

5.   Please indicate your year in college:

    _____ (1) firstyear

    _____(2) sophomore

    _____(3) junior

    _____(4) senior

    _____(5) graduate student

6.   List the country where you will be studying. _____

7. Circle the length of your study abroad program.   Semester   Year

8. List the name of your study abroad office   _____

9. List the name of your U.S. university.   _____

10. In what country were you born?_____

    Please list the country in which each of the following were born:

    Father   _____   Mother   _____

    Paternal Grandfather_____   Maternal Grandfather_____

    Paternal Grandmother_____   Maternal Grandmother_____

11. Indicate your family's approximate yearly income:
    ___$0-9,999
    ___$10,000-19999
    ___$20,000-29,999
    ___$30,000-39,999
    ___$40,000-49,999
    ___$50,000-59,999
    ___$60,000-69,999
    ___$70,000-79,999
    ___$80,000-89,999
    ___$90,000-99,999
    ___over $100,000

12. Indicate the amount of time (in months) that you have previously spent traveling or living in a foreign country.

    _____

Appendix B

Introduction to Study Letter

Dear University of [Insert Name Here] Study Abroad Student,

Congratulations on your decision to study in a foreign country. The next few months you spend overseas will likely have an ongoing impact on the rest of your life.

I am a counseling psychology doctoral student examining the experiences of U.S. study abroad students. I hope to include your experiences with theirs, and, as such, would like to invite you to become part of a voluntary study. Your responses will be aggregated with other participants' responses and statistically analyzed for my doctoral dissertation. Your responses will not be shared with your study abroad office

Your study abroad office is emailing you on my behalf so that I could make you aware of an important research project designed to investigate the experience of study abroad students. Your participation in the current research project will result in:

1. **Augmented knowledge of cultural shock.**
2. **Increased international understanding.**
3. **Improved study abroad programs.**

As you can see, although your participation is completely voluntary, if you chose to become involved with the Culture Shock research project you will be doing a great service.

To become involved in this project you must complete the first wave of a brief survey sometime in the week prior to your departure. You will then receive email reminders to complete the same survey three times again over a three month period while you are overseas. If you complete the entire research project you will have the option to enter yourself into a drawing for 1 of 10 $50 gift certificates to Target or Amazon.com

To learn more about this research project and to complete the 10-15 minute survey please visit the following website http://www.otal.umd.edu/cultureshock

I hope you will find this research meaningful, particularly in light of recent world events. Best wishes on your upcoming overseas journey,

Bradley Brenner, MPhil, MA
Doctoral Candidate
University of Maryland

Appendix C

Informed Consent

Please carefully read the following terms of consent:

I am at least 18 years of age. This study includes questionnaires about perceptions of adjustment, confidence in my ability to handle different situations while overseas, and levels of self-awareness. I understand that I will be asked to complete the questionnaires a total of four times, once prior to departing for my study abroad program and three more times at one-month intervals after my arrival in my country of destination.

My participation in this research is voluntary. I am free to stop participating at any point without penalty. No information will be submitted to the University of Maryland server until I click on the final "Submit My Responses" button at the end of each page. If at any point within one month after I have submitted my responses I wish to withdraw my participation in this study, I may contact the researcher at brenner@glue.umd.edu to request deletion of my data.

The data gathered in this study will be treated confidentially. The data will be stored with a code number, and will be password protected. In order to assure anonymity as well as a high quality data set, the Internet Protocol (IP) address of each computer from which data are submitted, along with a time/date stamp of when the data were submitted, will be recorded. As with other Internet transmissions, it is conceivable that the researcher could use the IP address to gain access to my identity; however I understand that he will not use the information for that purpose.

I understand that there are no other known risks associated with participation in this study. The benefits of this study are not intended to help me personally, but rather to help the investigator learn more about how study abroad students function while they are overseas.

I am free to ask any questions I may have now or at a later time. I may contact the researcher, Bradley Brenner, MPhil, MA at brenner@glue.umd.edu, or his faculty advisor, Dr. Robert Lent at boblent@wam.umd.edu.

By clicking "I agree" below, I attest to the fact that I have read, understand, and agree to the above statements and that I voluntarily agree to participate in this study.

I Agree. Take me to the survey.

Appendix D

Wave Notification Email Text

Dear Study Abroad Student,

Thank you for your involvement in the Culture Shock research project. You may recall that the research project is designed to improve international understanding and to gain better understanding about the process of culture shock. To meet that goal your experiences as a study abroad student are vitally needed. Please take this opportunity to complete the third wave of the survey. It should take about 5 minutes of your time. You can find the survey at

http://www.otal.umd.edu/cultureshock/secondtime.html

Your responses to this survey are critical to the research project and ensure that you will be enrolled for the lottery for 1 of 10 $50 gift certificates.

Thank you for your contribution to this important research,

Brad Brenner, MPhil, MA
University of Maryland

Appendix E

Wave Notification Reminder Email Text

Dear Study Abroad Student,

I realize that you're busy with your study abroad program, but would like to ask you to take the latest installment of Culture Shock survey. It will likely take you 5 minutes to complete. Please go to

http://www.otal.umd.edu/cultureshock/secondtime.html

to complete the survey. Your responses at all points of data collection are vital to this research project and ensure that you will be eligible to be enrolled in the drawing for 1 of 10 $50 gift certificates.

Thank you,

Brad Brenner, MPhil, MA
University of Maryland

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