

**A Preliminary Investigation into Dynamic Measurement and Implicit Affect in Assessing
Cross-Cultural Competence**



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Executive Summary

The research project described in this technical report was undertaken to address one of several challenges affecting the Department of Defense's goal of increasing the cross-cultural competency (3C) of military and civilian personnel—valid measurement of 3C and its antecedents. High quality measurement of 3C is important for selection and training, but an earlier report funded under this contract found that most of the currently available instruments in this field are either of poor or unknown validity (Gabrenya, Moukarzel, Pomerance, Griffith, & Deaton, 2012). Gabrenya et al. (2012) identified two gaps in assessment efforts: (1) the widespread use of self-report instruments and (2) inattention to affective and emotional processes involved in 3C.

Dynamic Measurement

Gabrenya et al. (2012) also showed that existing instruments, designed to measure psychological and sociocultural constructs, are not appropriate for assessing the competencies that are fundamental to the military models of 3C. Instead, such competencies are best measured using traditional assessment center methods.

Given the resources required to operate assessment centers, “mini assessment centers” with the following characteristics are suggested:

- Utilize behavioral rather than self-report, measures
- Be objectively scorable, not requiring assessors
- Target specific, narrow competencies or antecedents using relatively brief behavioral samples
- Presume the development of “integrated models” that combine causal processes with competency outcomes
- Use of a multimethod approach along with validated self-report measures

We propose the creation of “dynamic measures” that would simulate some qualities of the dynamic nature of an assessment center situation, such as time constraints, varying stressors, distraction, and multitasking. A first attempt at creating such a measure was undertaken in the development of a cultural situational judgment task that would be performed under varying degrees of cognitive load.

Affect and Emotion

Experiences in novel cultural contexts are highly affective, as sojourners face physical, social, and moral stimuli to which they may experience strong negative reactions. Some affective responses may occur outside the awareness of the individual, suggesting the utility of using a measure of implicit affect. Utilizing extensive research on the effects of disgust emotions, an implicit association test (IAT) was developed to measure implicit disgust toward unpleasant foods.

Validation Research

A 15-month research project utilizing international students was undertaken to test the dynamic situational judgment task (SJT) and the implicit affect measures. Participants were first administered a set of self-report personality, emotion, affect, coping, and adjustment instruments and were subsequently administered the SJT and implicit affect instruments. SJT results showed that psychological adjustment, personality, and emotion regulation self-report measures best predicted SJT performance, but the experiential and acculturation-related measures that were predicted to do so did not. The strong effects of personality-related constructs on SJT performance were explained in terms of their relationships to conscientiousness, the ability of psychologically adjusted individuals to interact more effectively with host country nationals (i.e., Americans) through which cultural understanding may be enhanced, and the helpful effects of emotion regulation reappraisal skills in handling stress during the testing process. Recommendations for improving the content and procedural characteristics of the dynamic SJT were made, and the requirements for producing valid dynamic measures for assessing 3C in the U.S. military were suggested.

The IAT component of the study was not successful. Few interpretable relationships were found between IAT scores and other measures. The nature of the IAT stimuli in the context of using an international population for whom English is not the native language was discussed. Given the many diversities in the U.S. military, an IAT approach to assessing affective reactions to novel cultural stimuli would require identifying and carefully pretesting stimuli appropriate to a variety of testing populations, perhaps by using a computer adaptive testing system.

<p>The findings in this report are not to be construed as an official DEOMI, U.S. military services, or Department of Defense position, unless designated by other authorized documents</p>

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Introduction

Cross-Cultural Competence in the U.S. Military

The U.S. Department of Defense has focused considerable resources recently on enhancing the cross-cultural competence of its military and civilian personnel. The Defense Equal Opportunity Management Institute (DEOMI), Army Research Institute (ARI), Defense Language Office (DLO)/Defense Language and National Security Education Office (DLNSEO) have been at the forefront of this effort. Research conducted under the auspices of these units of the DoD can be distilled to suggest that, in our quest to enhance cross-cultural competence (3C), we must grapple with four broad issues: (1) Defining 3C generally, and determining at an appropriate level of specificity which competencies are needed in the many Military Occupational Specialties (MOSS) and situations in which the U.S. military currently operates or may be expected to do so in the near future; (2) Understanding the causal or predictive relationships among situations, antecedents, competencies, and performance; (3) Assessing competencies and their antecedents; and (4) Developing appropriate training methods for components of 3C that are found to be trainable. The present report focuses primarily on assessment. A project reported by Gabrenya, Moukarzel, Pomerance, Griffith, and Deaton (2012), undertaken in the same research program as the present report, addressed the first and to some extent the second issues; and Gabrenya, Griffith, Moeser-Whittle, Moukarzel, and Pomerance (2012) addressed one aspect of the fourth issue.

A large number of models of 3C, or of “intercultural competence” more generally, have been proposed (Spitzberg & Changnon, 2009). Most of these models share the following four components: (1) relatively stable characteristics of the individual, such as personality traits, cognitive capabilities, social competency, and cognitive styles; (2) culture-general and region-specific knowledge; (3) attitudinal and motivational dispositions such as ethnocentrism, interest in culture, and motivation to learn; and (4) skills such as communication, language, culturally appropriate behaviors, and executive functions such as emotional regulation and metacognition (e.g., Abbe, Gulick, & Herman, 2007). 3C models developed within units of the DoD have for the most part been competency models, or have many of the characteristics of competency models (Shippmann, Ash, Battista, Carr, Eyde & Hesketh, et al. 2000). For example, the DLO Framework for Cross-Cultural Competency (Johnston, Paris, McCoy, Severe, & Hughes, 2010) defines a set of “core competencies” and a set of “enablers” (antecedents) that are expressed as behavioral competencies. Gabrenya et al. (2012) critiqued the DLO Framework in detail and found that it has high content validity, relative to theoretical and empirically-based statements of the competency domain in military and civilian contexts.

Measuring Cross-Cultural Competence

Efforts to measure 3C and its antecedents extend at least as far back as the inception of the Peace Corps, but intensified as researchers and program administrators attempted to ascertain the predictors of overseas adjustment among students, expatriate workers, and international development personnel (Church, 1982). However, despite the frequency of their use, the instrumentation developed to date is not of consistently high quality. Gabrenya et al. (2012) evaluated the criterion-related validity of over 30 instruments that were judged relevant to

assessing at least one component of the DLO Framework. They observed the following overlapping problems in the existing instrument armamentarium: (1) nearly all use self-report methods that appear unsuitable for assessing most competencies; (2) declarative, cognitively accessible, self-referent information is usually obtained; (3) the potential for faking ranges from subtle to severe; (4) affective states or processes are poorly assessed; (5) behavior is rarely measured; (6) the instruments map poorly to DLO Framework competencies; and (7) few were found to be adequately validated using performance criteria.

Self-report instruments are problematic. Gabrenya et al.'s (2012) analysis revealed, in particular, the many problems that are endemic to self-report methods. Nearly all self-report instruments in this area are face valid, asking respondents to provide self-assessments of knowledge-, skill-, ability-, or competency-related concepts. These reports are assumed to be accurate representations of internal states. For some instruments, the items invite self-serving biases, but even in the absence of motivated responding it is not clear that respondents have unbiased or sufficiently complete access to their internal states. A number of studies have shown that self-reports of knowledge, skills, abilities, or competencies have limited validity (e.g., Carter & Dunning, 2008; Dunning, Heath, & Suls, 2004; Falchikov & Boud, 1989; Harris & Schaubroeck, 1988; Mabe & West, 1982). In addition, a growing body of research shows that respondents intentionally alter their scores on personality related measures, or “fake” (e.g., Griffith & Converse, 2011), with deleterious effects on validity (e.g., Converse, Peterson, & Griffith, 2009).

Affect has received too little attention. The intercultural competence-performance literature, as noted above, has failed to adequately account for affective or emotional processes that serve as antecedents to competencies. Although many models of 3C include attitudinal components, and sometimes attitudes are labeled “affect” in such models (e.g., Abbe et al. 2007), affect in the sense of emotion or mood is usually only addressed in the form of recognition of the need for an antecedent component that includes emotional regulation and various aspects of self-control or self-regulation. In their conceptual review of models of intercultural competence, Spitzberg and Chagnon (2009), point out that the existing models are too “rational,” with insufficient attention to emotion and physiological responses. The work of Matsumoto and his colleagues (e.g., Matsumoto, LeRoux, Robles, & Campos, 2007) has explicitly focused on emotion, although Gabrenya et al. (2012) found that the primary instrument used in this research program, the Intercultural Adjustment Potential Scale (ICAPS), is problematic, compromising the research findings of studies that have used this instrument.

The Way Forward

Assessment Centers and Assessing 3C

If we are going to improve the measurement of 3C, what is to be done? We have identified two important shortcomings of current measurement in the 3C arena: the absence of valid measures that can assess competencies, and inattention to affective and emotional processes. In addressing the first shortcoming, Gabrenya, Moukarzel, Pomerance, and Griffith (2011) observed that the best measure of competencies and competency-oriented antecedents, such as the DLO Framework enablers, is formal assessment centers. Assessment centers are

expensive to develop and expensive to utilize because they require trained assessors, so this measurement approach is only feasible for small samples, such as higher ranking commissioned officers and civilian employees. They proposed that one alternative would be “mini assessment centers.” Mini assessment centers would have the following characteristics: (1) Like formal assessment centers, they would be behavioral, not self-report, measures; (2) In contrast to formal assessment centers, they would be objectively scorable, and would not require assessors; (3) They would be “mini” in sense of targeting specific, narrow competencies or antecedents using relatively brief behavioral samples; (4) They would presume the development of “integrated models” that combine causal processes with competency outcomes; (5) They would be used in a multimethod approach along with validated self-report measures. Combining points (4) and (5), a blend of behavioral and self-report methods would be used to measure at several stages in the causal model, some constructs defined as traditional, such as personality or attitudinal internal states, and others defined as competencies. A pattern or profile of high competency individuals would be developed for each integrated model, allowing the multimethod approach to be used to triangulate on the cross-cultural competency proficiencies of those being assessed. Such integrated competency models have yet to be developed in the U.S. military, unfortunately, although the civilian literature appears to be moving in that direction. Such models must describe the knowledge, skills, and abilities (KSAs) necessary for high levels of performance over services, ranks, missions, and cultural regions, i.e., they would be complicated to develop.

Dynamic Measurement. The set of strategies we base the present research on attempts to reproduce, in a narrow and controlled manner, various and varied characteristics of intercultural interaction and experience and to measure behavioral responses to these simulated contexts. Self-report measures related to 3C normally ask respondents to report on their inner states (sometimes including behavior intentions or past behaviors) in contexts that vary across cultural situations. The assessment environment is static (paper and pencil; website and pointer), to which the respondent responds relatively passively. The activity, if anywhere, takes place in the form of internal cognitive representations presumably produced by questionnaire items. Assessment centers, in sharp contrast, present the individual with an active and involving social or cultural context that can evoke a wide range of internal cognitive-affective responses as well as behaviors that can be observed and interpreted by assessors. In developing “mini-assessment centers,” we set out to reproduce some of the environmental activity and dynamic change present in assessment centers. We apply the general term “dynamic measurement” to this type of assessment approach.

In the present study, we examined one dynamic situation variable that has close analogs to the experience of individuals in novel cultural settings, cognitive load. Cross-cultural situations can often be cognitively overwhelming given the large range of novel stimuli encountered by an individual. The challenges that this cognitive load presents are exacerbated by the resource depletion that results from efforts to process and respond appropriately to cultural events over a period of time. Resource depletion may be due to cognitive effort, to processing threats to the self, or to physical demands placed on the individual in some cultural contexts, such as the physical environment or illness. Assessing behavior under conditions of cognitive load may approximate these situations, potentially allowing for more accurate assessments of individuals’ capabilities in the field.

The concept of cognitive load stems from the notion that the information processing capacity of working memory is limited (e.g., see Baddeley, 1986; Miyake & Shah, 1999). Cognitive load refers to the amount of these limited processing resources required in a given situation, with changes in load reflecting increases or decreases in working memory processing requirements. Cognitive load is typically induced using dual-task methodology in which a secondary task is introduced in addition to the primary task to increase overall load (e.g., see Brünken, Steinbacher, Plass, & Leutner, 2002). For example, during primary task performance, individuals may be asked to perform a secondary task such as tapping a foot pedal or generating random numbers (e.g., Logie, Baddeley, Mane, Donchin, & Sheptak, 1989). The idea is that performing the secondary task will use some of the individual's limited processing resources and thus fewer resources are available for performing the primary task. Changes in behavior and performance on the primary task can then be observed, allowing for a fuller assessment of the individual's abilities under varying levels of cognitive load.

Four non-exclusive measurement approaches may be taken to generating observable performances in a dynamic assessment instrument: (1) measure physical behavioral performance; (2) measure cognitive behavioral performance; (3) measure decision making behavior; and (4) measure cognitive judgments. *Physical behavioral performance* may be outside the domain of 3C. By this approach, we mean performance on a perceptual-motor task not unlike some video games that are characterized by more action than strategy. *Cognitive behavioral performance* refers to task completion and is analogous to an in-basket simulation. How well can an individual perform a task within a set of parameters? This type of behavior may be complex, for example, translating text using a dictionary; shopping in a virtual, unfamiliar supermarket; writing appropriate replies to messages or requests from people in a culture that utilizes unfamiliar communication styles. *Decision making behavior*, which may be a prerequisite to adequate performance on behavior performance tasks, involves information processing under conditions of ambiguity and incomplete knowledge. The individual must decide on a course of action in a given situation. *Cognitive judgments*, as used here, are knowledge-based decisions, essentially a test of the knowledge component of most models of 3C. Such judgments are usually prerequisite to making sound decisions. Each of these approaches can be integrated with several kinds of dynamic measurement features. In terms of the dynamic feature employed in the present research, cognitive load, physical, cognitive, decision making, and judgment behavior can all be undertaken under different levels of load, and load itself can be manipulated in a variety of ways.

The present study. The present research was a first attempt at developing a dynamic measurement instrument. A dynamic measurement approach and method were chosen that (1) allowed highly controlled stimuli and observable behavioral responses; (2) could be performed on the Internet rather than in a laboratory setting, for convenience of subject recruitment; (3) could be programmed using resources available to the researchers; and (4) could be integrated with a longitudinal study of overseas adjustment. We chose to develop a cultural situational judgment task under variable levels of cognitive load, designed for a sample of international students studying in the USA. The task shared features of the third and fourth measurement approaches described previously. The SJTs presented cultural dilemmas or problems for participants to solve, combining a need for specific cultural knowledge with cultural judgments under uncertainty. The manipulation of cognitive load during SJT performance was designed to simulate conditions under which complicated cultural decisions must be made with varied levels

of cognitive resources. In many cross-cultural situations, decision making takes place under favorable conditions: adequate time, low arousal and anxiety, favorable psychological states. However, in other situations, actors must make decisions quickly, when they are anxious, and when they are preoccupied, tired or sick. Cognitive load, as operationalized in the present study, allowed us to manipulate some features of time pressure and mental overload.

The dynamic measurement experiment was performed using two levels of load: low load and high load. We predicted the performance on the cultural SJT task would be better under low load than under high load. We expected that SJT performance would be related to knowledge, familiarity, and overall level of acculturation of international student participants to American culture, and that this relationship would be stronger under high load, where greater knowledge, overlearning, and experience would allow participants to counter the deleterious effects of load. Figure 1 illustrates our predictions.

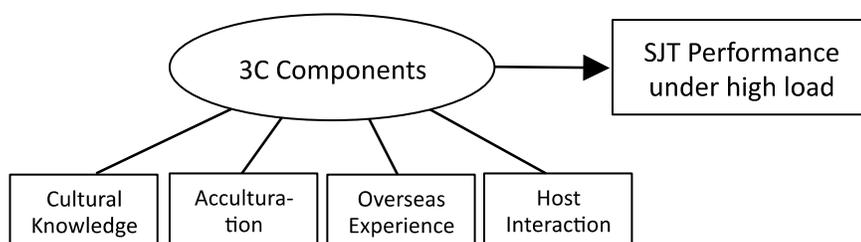


Figure 1. Dynamic situational judgment test predictions.

Affect and 3C

The second issue we have identified in measuring 3C is the inattention to affective and emotional processes in conceptualizing and assessing 3C. Most extant literature relates affect and emotion to psychological, and secondarily sociocultural, adjustment in overseas work or living rather than competencies or performance. Nonetheless, emotion regulation and other regulatory mechanisms are included as antecedents of 3C in models such as the DLO Framework. Thomas and Lazarova (2006) caution that “the adjustment-performance relationship typically ranges from non-existent to what can only be considered as moderate” (p. 257) and “the position of adjustment in the causal chain from antecedents to performance is unclear” (p. 259). Thus, affect may be more distal to 3C and performance than other antecedents.

In an early attempt to determine if affective responses to cultural practices are related to adjustment among people living in novel cultural contexts, Gabrenya and Shu (1993) looked at the daily experiences of Taiwanese and Chinese students studying in the United States. Six normative American behaviors that these sojourners often report as unpleasant or objectionable were identified, such as “kissing in public,” “talking about sex,” and “not taking off shoes in the house.” Self-reported negative affective responses to witnessing these actions were found to be related to self-reports of psychological distress.

Most research, however, has focused on emotion regulation without directly measuring affect as a mediating construct. We know of no instrument that has successfully implemented an emotion regulation measure contextualized for intercultural interaction. However, the Five

Factor Model emotional stability/neuroticism dimension has been found to be related to expatriate overseas performance (Mol, Born, Willemsen, & van der Molen, 2005).

Rozin's and Haidt's research programs on disgust and morality provide a useful starting point for understanding affect and emotion in cross-cultural experiences. Rozin, Haidt, and McCauley (2000) introduced the term "core disgust," "revulsion at the prospect of (oral) incorporation of an offensive object. The offensive objects are contaminants; that is, if they even briefly contact an acceptable food, they tend to render that food unacceptable" (p. 637). Disgust has had evolutionary advantages in protecting animals from incorporation of bad food and from contamination by others' diseases. For humans, disgust has generalized from physical protection to cultural integration through "moral disgust." Socio-moral violations are said to be rooted in animal disgust responses. Beyond simply a figure of speech, when people say that "the way those people _____ is disgusting," they reveal the evolutionary ontology of emotional reactions to cultural deviance or cultural differences (Haidt, Rozin, McCauley, & Imada, 1997). Schnall, Haidt, Clore and Jordan (2008) found evidence for this relationship by inducing physical disgust and measuring the severity of resulting moral disgust. Experimental participants who were exposed to physically disgusting stimuli were found to react more severely in moral judgments of deviant behavior (see also Horberg, Oveis, Keltner, & Cohen, 2009).

Approaching this phenomenon from an individual differences perspective, Rozin, Haidt, and McCauley (2008) summarize findings that people high in a trait they term "disgust sensitivity" (DS) differ from those low in DS on a variety of personality, political, and psychopathological constructs. For example, people high in DS are higher in obsessive-compulsive behavior, Five Factor Model neuroticism, and certain phobias. They are lower in sensation seeking, tend to be women, are of lower social class, and are politically conservative. In all cultures, disgust is "a moral emotion and a powerful form of negative socialization" (Rozin et al., 2008, p. 771). To the extent that cultures differ in norms, mores, practices, moral principles, etc., differences in what is negatively morally socialized increases, parallel to differences in socialization or acculturation for other practices, such as food and hygiene. Therefore, we might expect that culture travelers of any kind will experience disgust reactions to the practices encountered in other cultures, especially when culture distance is high. Sojourners high in disgust sensitivity should experience more negative emotions than those low in DS. Given that DS has been found to be negatively related to Five Factor Model-Openness, the often-cited cultural flexibility antecedent to intercultural adjustment and 3C might prove to be related or a direct function of DS, but we know of no research that has examined this relationship. We expect that DS and flexibility would be negatively related.

Disgust and implicit associations. Research on implicit attitudes has found that both conscious, explicit attitudes and unconscious, implicit attitudes are related to other judgments and to behavior (Greenwald, Poehlman, Uhlmann, & Banaji, 2009). Attitudes, defined as evaluations, can be viewed as affective responses to stimuli, albeit not usually as strong as emotional responses. The presence of objects (including symbols and concepts) known to an individual can be viewed as priming the salience of knowledge structures associated with these objects (Oyserman & Lee, 2010) and evoking attitudes and affect related to the objects. Both explicit priming manipulations and subliminal techniques have been found to be effective primes. Similarly, cultural stimuli may act as conscious or unconscious primes to activate knowledge

structures, make attitudes salient, and produce affect. The effects of cultural primes may themselves be directly accessible to individuals or may be outside of awareness, and individuals may be unaware that conscious or unconscious affect, attitudes and beliefs have influenced their behavior, judgments, or cross-cultural competencies. Figure 2 illustrates this process and the points at which the stimulus or its effects can be known (check marks indicate awareness; crosses indicate lack of awareness).

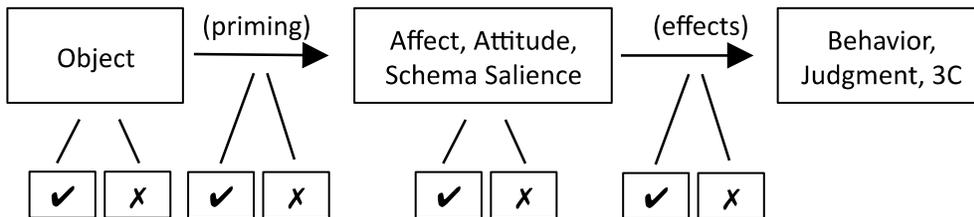


Figure 2. Process model of stimulus-affect-response process indicating points at which the individual can be aware (check marks) or not aware (crosses) of the external or internal state or the process.

Most priming studies employ methods that are either outside of participant awareness or that appear to participants to be irrelevant to subsequent steps in the experimental procedure. Explicit (aware) or implicit (unaware) measures of the effect of priming are employed. When effects of the stimulus on behavior or judgment are measured, participants are frequently unaware of the causal effects of the stimulus manipulation.

The model presented in Figure 1 may also be applied to affective or emotional response to cultural stimuli. For example, Gabrenya and Shu's (1993) study presented cultural stimuli--depictions of public behaviors--in a manner that was, by definition, within participants' awareness, and used explicit (aware) measures of affective responses to the stimuli. The presumed effects of affect on psychological adjustment may or may not have been outside the awareness of study participants. Research on biculturalism and language-of-administration sometimes uses priming methods that are outside of participants' awareness, or that are within their awareness but not perceived as related to subsequent judgments or behaviors. The disgust-moral judgment literature provides some interesting clues as to how this process might work in the context of affect and emotion. In Schnall et al.'s (2008) study of moral judgments made in the presence of disgusting stimuli, they found that study participants were aware of the disgusting stimuli (strong smells) but not aware that their explicitly measured moral judgments were influenced by the stimuli. Wheatley and Haidt (2005) used a hypnotic suggestion procedure (hypnotically induced disgust at the presentation of a previously neutral word) to induce disgust and found that moral judgments were stronger for disgusted participants. In this study, the stimulus was outside of awareness but the moral judgment was explicit. Extrapolating these findings, we suggest that awareness may be present or not at each stage of the model: individuals in novel cultural contexts may or may not be aware of stimuli that implicitly or explicitly influence their affect, attitudes, or salient beliefs, and affect, attitudes and beliefs may influence subsequent judgments and behaviors, including choices and skills within the domain of 3C, regardless of their awareness of this influence. Appraisal processes that take place at the presentation of the cultural stimulus, not shown in Figure 1, may moderate the effects of the stimulus.

The present research was designed in part to assess both explicit and implicit affect and examine their relationships to traditional self-report measures of adjustment. Several measures of implicit affect have been developed, including Johnson, Tolentino, Rodopman, & Cho's (2010) word fragment completion test and the Implicit Association Test (IAT; Greenwald, Poehlman, Uhlmann, & Banaji, 2009). While the IAT does not measure affect directly, it appears to measure activation of knowledge structures that are associated with affect and attitudes, as we have argued in previous sections. Drawing on the disgust literature reviewed above, we created a text based IAT for disgust in response to unfamiliar, unpleasant foods that are prepared in some societies but are generally disliked by people in most others. We expected to find relationships between implicit disgust and self-report measures of psychological adjustment. Some research has also focused on the use of cognitive appraisal strategies in responding to negative stimuli. Culhane (2011) found that people who were given cognitive reappraisal training showed relatively less negative associations on a disgust IAT than people who received no training or another type of training. In the present study, we expected that emotion regulation and coping strategies would mitigate the negative impact of disgusting stimuli, that is, participants who scored higher on measures of reappraisal emotion regulation strategies, active coping strategies, and overall psychological well-being would show less negative affect on the disgust IAT.

Design Overview

The research reported here was conducted over a 15 month period using elements of both cross-sectional and longitudinal designs. The study was primarily correlational but included the SJT experiment described previously in its last phase. Two samples of international students were given a pretest set of questionnaires that included several self-report instruments and a demographics sheet. Participants who completed the pretest were administered additional questionnaires every several months. Finally, participants who completed at least two of the follow-up questionnaire sets were asked to take part in the SJT experiment and to perform the disgust IAT.

Method

Participants

Participants were recruited from two sources: international students attending a private university in the U.S. southeast and international students enrolled in a flight training program at the same university. Flight students arrived in cohorts about two months apart, $N_s = 41$ and 47 . International students were recruited as they arrived on campus for the Fall ($N = 355$) and Spring ($N = 138$) semesters. Students were asked to participate during their respective orientation programs and through email solicitations. Lotteries for \$50 gift cards were offered as incentives. In the final phase of the study, students were also solicited through telephone calls. In total, 158 participants provided information for at least one component of the study, 151 of whom were retained following cleaning of the dataset (described in the Results section). Table 1 shows the breakdown by sample source and sex.

International students' most frequent nationalities included China ($N = 19$), Saudi Arabia ($N = 12$), France ($N = 8$) and India ($N = 5$). All flight students were from one nation in the Middle

East. International students' average age was 22.7 years (range 18 to 37); flight students' average age was 27.2 years (range 23 to 31). Among international students, 40% were enrolled in undergraduate majors, 30% in Masters programs, and 30% in Doctoral programs. Most of the international students were in science and engineering fields, but 16% were in business fields. All of the flight students had completed undergraduate degrees in engineering or business. Response rates were generally low but varied, depending on what phase of the study is used as a criterion for participation. Using completion of the pretest (described later in the Method section) as a criterion, the response rates were 48% for flight students and 16% for international students. Using completion of the second follow-up (described below), the rates were 24% and 4%.

Table 1

Basic Participant Characteristics

Sample	Sex		Total
	Male	Female	
International Students	72	28	100
Flight Students	50	1	51
Total	122	29	151

Self-Report Instruments

Big Five Indicator (BFI). A 44-item five factor personality questionnaire (John & Srivastava, 1999) that employed a stem and adjective format was included.

Sociocultural Adaptation Scale (SCAS). Ward and Kennedy's (1999) Sociocultural Adaptation Scale (SCAS) was developed to assess two domains of psychological adjustment, emotional/affective and sociocultural/behavioral. The 29-item version of the scale was used in the present research. Based on an examination of the dimensional structure of the scale in our samples, a single SCAS measure was created by averaging the 29 items. High values indicate better adjustment.

Coping Strategies (COPE). The Ways of Coping (COPE) scale was developed by Carver, Scheier, and Weintraum (1989) to assess 14 components of problem-focused and emotion focused coping styles. Problem-focused coping, termed active coping by others, involves trying to do something constructive to deal with stress. Emotion-focused coping may be employed when active approaches seem infeasible; instead, the individual endures the stressor and tries to reduce negative emotional responses to it. The long form of the scale includes 60 items to which respondents indicate the extent to which they usually do or usually don't do each behavior on a 4-point scale. An example of a problem focused (active coping subscale) item is "I try to get advice from someone about how to do it." The short form of the instrument was used in the present study, consisting of 28 items, two per subscale.

Life Orientation Test (LOT-R). Dispositional optimism refers to a belief that more good things than bad things will happen in the future. Optimism has been associated with a broad variety of positive outcomes, including health outcomes (Carver, Scheier, & Segerstrom, 2010; Shepperd, Maroto, & Pbert, 1996). Carver and Scheier (1985) developed the Life Orientation Test (LOT) to assess optimism, and subsequently revised it as the LOT-R (Scheier, Carver, & Bridges, 1994). The LOT-R includes 8 items, e.g., “In uncertain times, I usually expect the best” to which respondents agree or disagree on a 5-point Likert scale.

Satisfaction with Life Scale (SWLS). Satisfaction with life is an evaluative judgment of one’s overall life and is considered one of three components of subjective well-being, along with positive and negative affect (Pavot & Diener, 2008). The Satisfaction with Life Scale was designed to assess the construct (Diener, Emmons, Larsen, & Griffin, 1985) and has found wide acceptance. Respondents report their agreement or disagreement with five items such as “In most ways my life is close to my ideal” on 7-point Likert scale.

Positive and Negative Affect Scale (PANAS). The frequently used PANAS was introduced by Watson, Clark, and Tellegen (1988) based on previous research suggesting that positive and negative affect are relatively distinct constructs with different relationships to measures of distress and depression. The PANAS includes 10 positive adjectives (“interested,” “proud,” “active,” etc.) and 10 negative adjectives (“distressed,” “upset,” “hostile,” etc.) to which respondents rate the extent to which they feel this way at the present time on a 4-point Likert scale anchored by “Not at all” and “Totally.” We changed one negative adjective for the sake of readability by English as a second language participants to “Jittery, jumpy, on edge, stressed out.”

Center for Epidemiological Studies – Depression (CES-D-8). The original 20-item Center for Epidemiological Studies depression instrument was developed by Radloff (1977) from several other depression measures and the MMPI for use in epidemiological studies in which short questionnaires are more useful. The CES-D-8 is a still shorter form of the original CES-D developed by Bracke, Levecque, and van de Velde (2008). Respondents are asked “How much of the time during the past week have...” followed by eight emotional states such as “...you felt depressed?” and “...You felt sad?” The response scale is a 4 point Likert scale bounded by “None or almost none of the time” and “All or almost all of the time.”

Vancouver Index of Acculturation (VIA). The Vancouver Index of Acculturation (VIA) was developed by Ryder, Alden, & Paulhus (2000) to measure acculturation as a two dimensional construct in order to detect individual’s degree of acculturation to both home and host/new cultures, consistent with Berry’s (1997) conceptualization of acculturation. Later work by Arends-Tóth and van de Vijver (2007) provided additional empirical support for a two dimensional rather than one- or four-dimensional assessment of acculturation. The 20-item VIA includes items that are intended to measure intentions and attitudes concerning a broad range of social-cultural activities, such as traditions, marriage, work, entertaining, values, etc., for example, “I often participate in mainstream American cultural traditions.” Respondents indicate their agreement with the statements on 7-point Likert scales.

Cameron Identity Scale (CIS). The Cameron Identity Scale was developed to measure social identity in ethnic and gender groups in the United States, but has been used in studies of identity change following repatriation from overseas experiences (Sussman, 2002). Cameron (2004) proposed that social identity has the following components: cognitive centrality (i.e., importance), ingroup affect, and ingroup ties (i.e., beliefs about similarity to an ingroup). In the present study, we wrote the items to refer to the respondents' home society, and added one ingroup ties style item to refer to "ideas." An example of an ingroup ties item as written for the present study is "I have a lot in common with other people from my home country." Respondents were asked to indicate their agreement with the statements on a 5-point Likert scale.

Generalized Self-Efficacy (GSE). Schwarzer and Jerusalem's (1995) 10-item Generalized Self-Efficacy Scale (SE) has been translated for use in several languages and nations. The items were averaged and the mean was reversed to form an SE measure in which high values indicate high efficacy.

Emotion Regulation Questionnaire (ERQ). The ERQ was developed by Gross and John (2003) in order to measure the two "strategies" they hypothesized people use to control their emotions, reappraisal and suppression. The ERQ includes 10 items of the form "When I'm faced with a stressful situation, I make myself think about it in a way that helps me stay calm" (reappraisal) and "I control my emotions by not expressing them" (suppression). Respondents indicate their extent of agreement with the statements on a 7-point Likert scale.

Attitudes. Participants were asked for their attitudes toward characteristics of their lives in America and at the university. International students received 11 questions and flight students received an additional two questions concerning their training. All students were additionally asked, "Overall, how do you feel about living in America" and "Overall, what is your attitude about being a student at [name of university]?" Response scales for all items were 5-point Likert scales anchored by "very much dislike" and "very much like."

Intergroup Contact Scale (ICS). The ICS was adapted from Islam and Hewstone's (1993) research in Bangladesh on the relationship between Hindus and Muslims. Informed by the contact hypothesis of intergroup relations, they developed an instrument to measure both quantitative and qualitative characteristics of intergroup relations, that is, the amount of interaction that takes place and affective response to the interaction. Participants were asked how much person-to-person contact they had with Americans over the previous month on campus, where they live, and with close friends; how often they talked with Americans outside of classes; and how often they visited Americans in their homes. These items were answered on 7-point Likert scales anchored by "None at all" and "A great deal" or "Very often." Quality of contact was assessed by asking participants if the contact appeared to be of equal status (very unequal – very equal), voluntary (involuntary-voluntary), superficial or deep (very superficial – very deep), pleasant (very unpleasant – very pleasant), and competitive or cooperative (very competitive – very cooperative). Finally, they were asked if they believed the Americans with whom they interacted were "typical Americans" (not at all typical – very typical).

Index of Sojourner Social Support (ISSS). The laudatory impact of social support on a variety of social and health outcomes led sojourner adjustment researchers to include it in their

own studies. Ong and Ward (2005) developed a social support instrument that was designed to ascertain the kinds of support needed or desired by sojourners, which are often different than the needs of non-sojourner populations. The ISSS presents 18 types of support, for example, “comfort you whenever you feel homesick” and “explain and help you understand the local culture and language.” For each type, respondents are asked to indicate whether they knew someone who would do this for them on a scale from 1 (no one would do this) to 5 (many would do this). Ong and Ward (2005) found some evidence that the instrument incorporates two dimensions of support, socioemotional support and instrumental support.

Dynamic Assessment Instrument

The dynamic assessment instrument chosen for this pilot study incorporated a manipulation of cognitive load into a situational judgment test, as discussed in the Introduction section. The instrument was developed in three phases.

First, the researchers generated a series of situational judgment test items that presented dilemmas a university student would commonly face in American society. The item content drew upon the experience of the four researchers, two Americans and two international graduate students. The two Americans had had extensive international experience and the two international graduate students had been in the United States for 1-3 years. The situations involved classroom demeanor, interactions with peers in project assignments, social life, the workplace, and family relations. For each situation, 4 to 6 answers or solutions were presented.

Second, the items were pilot tested on samples of American and international students. Respondents were asked to rank order the quality of the answers and to rate each situation for plausibility. Online survey software was employed for this phase. For each item, the profile of answer preferences (averages of ranks; necessarily ignoring issues of ordinality) for international and American respondents were compared. A set of 6 items were selected that showed (1) the greatest difference between the profiles of the two samples; and (2) high plausibility. Two items were modified and subjected to a second round of pretesting. Appendix E presents the final item set.

The use of international students in the experiment introduced a probable source of error variance and a possible source of confounding due to English language reading speed and comprehension deficits. Therefore, we included two methods of assessing participants’ reading comprehension ability. In the pretest self-report part of the study, described in a later section, we included four self-report items: self-rated English reading, listening, writing, and overall abilities. In the SJT task, we included two items that were designed to assess language performance in a contextualized manner through SJTs that resembled the six cultural scenarios but included minimal cultural content. One item was designed to be grammatically difficult, using complex verb forms. The other items were designed to be lexically difficult by using colloquialisms and slang. These items were not pretested. One additional item was written as an example item to help explain the SJT to research participants.

In the third, production phase, of the experiment, a web application was written in php/mysql to present the nine items. Table 2 shows the basic structure of the experiment. The

reading comprehension items were presented in counterbalanced order (i.e., the grammar or lexical item was presented in block 2, and vice versa). The six SJT items were presented in four order conditions, which were randomly assigned to participants.

Table 2

Basic Structure of SJT Experiment

Block	Items
0	Instructions
1	Example item
2	Reading comprehension item (counterbalanced)
3	6 SJTs in 4 randomly assigned orders
4	Reading comprehension item (counterbalanced)

Cognitive load was manipulated using a digit span task. During each trial, a one- or five-digit number was presented to the participants. Participants were told they would be asked to recall the number later, and were asked to not write it down. A random number generator determined, trial by trial, whether a low-load (one-digit) number or a high load (five-digit) number would be presented. The numbers were randomly generated. The example item and both reading comprehension items were presented under low load.

Table 3 shows the structure of a single trial. The participant controlled the pace of the experiment in most steps. Due to unforeseeable differences in reading speed, we decided to allow the participant as much time as necessary to read the situation text (step 2 in Figure 3). However, we expected the cognitive load would affect reading speed in the testing step (step 4a). To maintain the integrity of the load manipulation (i.e., to prevent the dilution of high load through participants spending longer to answer questions), we placed a timer on that step. Participants were given 30 second to answer, after which they were shown additional text that indicated that time was up. They were no longer able to enter information on the web form at this point. To provide a warning that time was almost up, the timer text changed from black/regular to red/bold text when five seconds were remaining (step 4b). Appendix F shows the screens displayed to participants at each step.

Table 3

SJT Trial Structure

Step	Event	Timing and control
1	Trial title screen	Participant controlled
2	Situation (no answers)	Participant controlled
3	Load administration – number given	Timed: 5 seconds
4a	Test: Situation and answers; timer	Timed: 30 seconds
4b	Timer turns red/bold	5 seconds remaining
5	Ending screen	Participant controlled

Implicit Association Test

A standard attribute-target IAT was constructed using a model available on Anthony Greenwald's website, (http://faculty.washington.edu/agg/iat_materials.htm). The IAT was administered over the Web using Inquist 3 Web Edition by linking the post-training affect measure on QuestionPro to the Inquisit website on which the IAT resided, then linking the IAT to the final questionnaires on QuestionPro. The IAT design included nine blocks of trials as shown in Table 4. Participants were randomly assigned to an order condition shown in Table B or to one in which the compatible and incompatible test blocks were reversed.

The IAT used text for both attribute and target stimuli. Attributes were the positive adjectives *delicious, savory, yummy, appetizing, flavorful, and good* and the negative adjectives *gross, repulsive, awful, horrible, rotten, and nasty*. Targets were types of foods, including familiar American foods, *Big Mac, hot dog, club sandwich, chicken wings, cheeseburger, and onion rings*, and exotic, possibly repulsive foods, *poached duck fetus, fried bee larvae, monkey brains, steamed rats, ox penis and bat soup*. The exotic foods were chosen because they would probably be disgusting to the American participants, even though they are all eaten somewhere in the world. Category target labels were *American Food* and *Foreign Food*. Category attribute labels were *Tasty* and *Disgusting*. The target (food) categories and stimuli were presented in white text and the attribute (adjective) categories and stimuli in green text. The background screen was black. Participants were asked to make category judgments by pressing the “E” key if the stimulus belonged to a category on the upper right and the “I” key if it belonged to a category on the upper left. Order of stimuli was randomized within block. Participants were allowed to correct errors. This IAT design differed from the design described in Greenwald et al. (2003) in that it omitted compatible and incompatible practice blocks but included more test blocks.

On target training trials, a food stimulus was presented in the center of the screen; on attribute training trials, an adjective stimulus appeared. Compatible trials presented the categories *Foreign Food* and *Disgusting* on the upper left of the screen and *American Food* and *Tasty* on the upper right. Incompatible trials presented the categories *American Food* and *Disgusting* on the upper left of the screen and *Foreign Food* and *Tasty* on the upper right.

Appendix H shows the screens experienced by participants during the IAT.

Table 4

Block level Description of IAT

Block	Trials	Type – Order 1	Type – Order 2
1	20	Target Practice – American Food on left	Target Practice – Foreign Food on left
2	20	Attribute Practice	Attribute Practice
3	20	Incompatible Test	Compatible Test
4	n/a	Incompatible Instructions	Compatible Instructions
5	40	Incompatible Test	Compatible Test
6	20	Target Practice – Foreign Food on left	Target Practice – American Food on left
7	20	Compatible Test	Incompatible Test
8	n/a	Compatible Instructions	Incompatible Instructions
9	40	Compatible Test	Incompatible Test

Procedure

Table 5 provides the overall structure of the study. In Phase 1, participant recruitment took place. For flight students, the research team attended orientation sessions that were scheduled during students' first week on campus. A one-hour appeal was made for participation in which the characteristics of the research were shown and assurances were made that, although the research was funded by the U.S. Department of Defense, it was cultural research with no direct military application. Informal reports from flight students indicated that a substantial proportion were unwilling to participate due to the funding source. Anonymity with respect to the flight school, the sponsoring agency, and the DoD was assured. Flight students arrived in two groups about two months apart. For international students, a short appeal was made at the end of their first-week orientation program and signup sheets were distributed before they left the venue. A database of all flight and international students was created in which solicitations and participation was logged and from which email solicitations were sent using an automated script.

In Phase 2, the pretest was administered. All instruments were administered online. As the pretest included the informed consent form and the demographics sheet, as well as several questionnaires, performance of the pretest defined who was in or not in the study. The initial recruitment presentations and the emails that were sent to request completion of the pretest announced a lottery in which 2 students would receive \$50 gift cards for participation. The pretest questionnaires, listed in Table 5, were presented in two orders although the consent form and the demographics sheet were always presented first. Completion of the pretest was logged in the database and appeals for participation to non-responders were made up to four times. Flight students were also contacted by phone to encourage them to complete the questionnaires. The pretest questionnaire is presented in Appendix A.

In Phase 2, individuals who had completed the pretest were asked to take another set of questionnaires, termed Follow-up 1 in Table 5. This set of questionnaires focused on current affect, psychological adjustment, and recent emotional events (See Appendix B).

In Phase 3 (Follow-up 2) the questionnaires included in Phase 2 were repeated, and two additional questionnaires were added: ISSS and Attitudes (See Appendix C).

In Phase 4 (Follow-up 3), the questionnaires included in Phase 2 were repeated, as well as the SCAS (See appendix D).

In Phase 5 (SJT/IAT), the questionnaires included in Phase 2 were repeated, followed by the SJT experiment and the IAT administration. All participants who had completed at least the pretest, Follow-up 1, and Follow-up 2 were invited by email and phone to participate in this phase. These participants were paid \$25, through a gift card, for their participation.

Table 5 provides the average time span over which each phase took place. Phases 2-6 were scheduled to be 6-9 weeks apart, but because we needed to send up to four reminders at each phase, participants were quickly on different administration schedules.

Table 5

Overall Structure of the Study

Phase	Questionnaires/Event	Details	Approximate Actual Time Span
1	Recruitment presentations		n/a
2	Pretest	Consent, demographics, questionnaires: SWLS, BFI, ER, CES-D, PANAS, GSE, LOT-R, COPE, VIA, CIS Two order conditions	Up to 4-5 weeks; up to 3-4 requests
3	Follow-up 1 Assessment	CES-D, SWLS, PANAS, Events	Up to 4-6 weeks; up to 4 requests
4	Follow-up 2 Assessment	CES-D, SWLS, PANAS, Events, ISSS, Attitudes	Up to 12 weeks; up to 6 requests
5	Follow-up 3 Assessment	CES-D, SWLS, PANAS, Events, SCAS	Up to 15 weeks; up to 4 requests
6	SJT/IAT Experiment	CES-D, SWLS, PANAS, Events, SJT, IAT	Up to 12 weeks; up to 4 requests

Results

Preparation of Self-Report Data

Big Five Indicator (BFI). Items were averaged within each of the five Big Five factors after reversing several items. Reliabilities ranged from .64 (openness) to .81 (extraversion).

Sociocultural Adaptation Scale (SCAS). The 29 items of the SCAS were averaged to form a variable in which high values indicate better adjustment. Cronbach's alpha = .92.

Coping Strategies (COPE). The subscale scoring key provided by Carver (<http://www.psy.miami.edu/faculty/ccarver/sc1BrCOPE.html>) was used to create 12 subscales comprised of one to three items. An additional subscale was calculated by combining the five emotional and instrumental support items, alpha=.85. A second order principal components analysis of the 13 subscales pointed to three higher order factors: active coping, avoidance, and relational.

Life Orientation Test (LOT-R). Of the 10 items in this instrument, four are fillers. The remaining six items were averaged after three items were reversed such that high values indicate greater optimism. Coefficient alpha for the instrument = .64.

Satisfaction With Life Scale (SWLS). The SWLS was administered several times to each participant. For each administration, the five items of the SWLS were averaged to form a variable in which high values indicate greater satisfaction. Coefficient alphas = .77 to .88 across administrations.

Positive and Negative Affect Scale (PANAS). Items were averaged within the positive and negative adjective sets to create variables in which high values indicate higher positive or negative affect. This procedure was followed for all administrations of the PANAS. Coefficient alphas ranged from .84 to .92 (positive items) and from .72 to .84 (negative items).

Center for Epidemiological Studies – Depression (CES-D). The CES-D-8 includes six negative items (lonely, sad, etc.) and two positive items (happy, enjoyed life). The positive items were reversed and the eight items were averaged to form a variable that indicates depression with high scores. This procedure was repeated for each administration of the CES-D. Coefficient alphas ranged from .69 to .88.

Vancouver Index of Acculturation (VIA). The version of the VIA used in this study includes 10 items that are intended to measure acculturation to the respondents' own society and five items that focus on acculturation to the host (American) society. VIA-Home and VIA-America variables were computed by averaged items within these two sets such that high values indicate greater acculturation. Coefficient alpha for the VIA-Home items = .81; alpha = .70 for VIA- America items.

Cameron Identity Scale (CIS). We performed a principal components analysis to attempt to replicate the three-factor structure of the CIS reported by Cameron (2004). Although the

eigenvalues > 1 and scree test criteria suggested a two factor solution, we forced a three-factor solution. The outcome of oblique rotation did not resemble Cameron's findings. A two-factor solution suggested that a single dimension fit the data best. Examination of reliability and item-total correlations supported the principal components analysis in indicating that the two items in the second factor should be dropped. Therefore, the remaining seven items, following reversal of two items, were averaged. Coefficient alpha = .76.

Generalized Self-Efficacy (GSE). The 10 GSE items were averaged to form a variable in which high values indicate higher self-efficacy. Coefficient alpha = .88.

Emotion Regulation (ER). The ER instrument has two subscales, reappraisal and suppression. Items were averaged within subscales to form two variables in which high scores indicate more reappraisal or more suppression. Coefficient alphas = .78 and .73 for reappraisal and suppression, respectively.

Attitudes. Participants were asked for their attitudes toward various aspects of their lives as students at the university in the second monthly administration. Three attitude variables were formed from these items: Attitudes-Academics (three items, university administration, instructors, fellow students); Attitudes-Living (seven items, the city, weather, state, living in the USA, etc.); and Attitudes-Lifestyle (three items, nightlife, public transportation, dorm food). Coefficient alphas for the three subscales = .76, .85, and .56, respectively.

Intergroup Contact Scale (ICS). The ICS was completed in the second monthly administration. The ICS quantity of interaction subscale was calculated by averaging five items, alpha = .92. The quality of interaction subscale was calculated by averaging five items, alpha = .82. One item, "superficiality of contact" was not used because it was found not to be related to other items in the quality subscale.

Index of Sojourner Social Support (ISSS). The ISSS includes items that reference social and emotional support as well as items that reference instrumental types of support. A principal components analysis with oblique rotation revealed a very large first factor, accounting for 68.2% of the variance, and a weak second factor accounting for 8.8%. The first factor included most of the instrumental items and the second factor included all of the social-emotional items. The factors were correlated highly, $r = .70$. Given the size of the first factor and the interfactor correlation, a single social support variable was calculated by averaging the 18 items such that high values indicate greater support. Coefficient alpha = .96.

Preparation of Dynamic Assessment Data

Four types of situational judgment test (SJT) performance scores were computed. Two types of scores only considered the participant's first ranked answer; all other chosen answers were ignored. A *dichotomous* score for an item had a value of 1 if the highest ranked answer matched the best answer as defined by the item pretesting sample and a value of 0 if it did not, similar to a multiple choice exam question. *Proximity* scores were calculated by computing the number of ranks between the participant's top choice and the correct answer. If the top choice was correct, 3 points were given; if the top choice was one rank removed from the correct answer

(e.g., the correct answer was option 1 but the participant gave option 1 a rank of 2), 2 points were given; if the top choice was two ranks removed, 1 point was given. Proximity score values could range from 0 to 3, where high values indicate better performance.

Two additional types of scores used all of the participant's answers. *Pattern* scores took into account all of the participants' answers by comparing, answer for answer, the rank given by the participant to the quality of the answer (best to worst) as judged by the American pretesting sample. Greater weight was given to matching the better answers: if the participant's top choice matched the best answer, 3 points were given; if the second choice matched the second best answer, 2 points were given; if the third choice matched the third best answer, 1 point was given. If the participant's pattern of choices matched the pretest sample's pattern of ranks, a pattern score of 6 was given. High values indicate better performance. *Mean deviation* scores are analogous to sums of squares in statistics. The difference between the participant's choices over four answers and answer qualities from the pretest data were squared, the square roots were taken, the four values were averaged. Mean deviation scores are a kind of pattern score, but more liberal with respect to the specific shape of the choice and quality functions. Scores could range from 0 to 8, where high values indicate poor performance. Appendix G provides the SPSS script that was used to calculate the four performance indices.

The overall relationships among the four types of scores were examined across all of the items by averaging correlations between types of scores over all items following r to z to r conversions. Dichotomous and proximity scores were most highly related, $r=.75$, while dichotomous scores and mean deviation scores were least related, $r=-.23$. Therefore, we included all four types of scores in subsequent analyses. For all of these measures, we are taking the liberty of performing interval-level math on ordinal level data.

For each type of score, summary indices were calculated for items that were presented under low load and for items that were presented under high load. The load variable was manipulated as a within-subjects experimental factor. For all four scoring methods, participants performed more poorly under high load than under low load. However, comparisons of high and low loads using dependent t -tests revealed that only the pattern score dependent variable approached significance, $t(16)=1.88$, $p=.08$.

Preparation of Implicit Association Test Data

The modified computational procedure described in Greenwald, Nosek, and Banaji (2003) was used to prepare the data for analysis. Trials with latencies over 1000ms were dropped and D scores were calculated for target trials—trials in which the foods were presented as stimuli. D scores are difference scores between compatible and incompatible blocks of trials, adjusted for within-block variability. Negative D scores (compatible minus incompatible latencies) are expected and indicate a faster association between similar concepts (familiar foods and positive adjectives; unfamiliar foods and negative adjectives) than dissimilar concepts (familiar foods and negative adjectives; unfamiliar foods and positive adjectives). A lower D score on target trials, i.e., trials in which participants make judgments concerning food stimuli, indicates a greater preference for familiar foods. Error rates were calculated for each subject, over all test trials, for use in assessing the quality of the data. An error occurs on an IAT trial when the participant

makes an incorrect category judgment for the target or attribute stimulus. The structure of the IAT resulted in calculating D scores for “long blocks,” “short blocks” and combined blocks based on the number of trials in the blocks.

Data Cleaning and Outliers

Examination of the item-level within-subject variances for the self-report instruments led to the deletion of five participants who seemingly “Christmas-treed” at least three instruments in the pretest. Several multiple regression models using depression (CES-D), satisfaction with life (SWLS), and optimism (LOT-R) dependent variables with sets of independent variables (Five Factor Model; coping/emotion regulation; acculturation/identity; affect) were run to generate Mahalanobis distance indices of multivariate outliers. Two additional participants were deleted because they exceeded the $p < .01$ critical values on two or more of the Mahalanobis distance indices. Internal consistency reliability statistics for each instrument, presented above, were performed on the cleaned dataset.

Self-Report Instruments Means

Tables 6a to 6d present means and standard deviations for the instruments that were included in the pretest, by sample. (The one female flight student was omitted from the analysis.) One-way ANOVAs are also presented. Significant sample differences were found for FFM-Extraversion, FFM-Conscientiousness, FFM-Stability, Self-Efficacy, and Satisfaction With Life. For most measures, flight students were higher in the assessed construct than international students. International students appeared to be more acculturated to home and to America than flight students (Table 6d), although the sample difference for acculturation to America was stronger than the difference for acculturation to home. However, cross-cultural scalar equivalence has not been established for these instruments, so mean comparisons cannot be interpreted.

Table 6a

Five Factor Model means by sample and sex

		N	Mean	Std. Deviation
Extraversion	Flight males	39	3.6	0.70
	INT males	60	3.2	0.72
	INT females	27	3.3	0.73
	Total	126	3.3	0.73
	ANOVA: $F(2,125)=4.01, p<.03$			
Agreeableness	Flight males	39	3.8	0.46
	INT males	59	3.8	0.55
	INT females	27	4.0	0.46
	Total	125	3.9	0.51
	ANOVA: $F(2,124)=2.32, n.s.$			

Conscientiousness	Flight males	39	3.9	0.60
	INT males	60	3.6	0.63
	INT females	27	3.7	0.57
	Total	126	3.7	0.62
	ANOVA: F(2,125)=3.15, p<.05			
Stability	Flight males	39	3.6	0.67
	INT males	60	3.5	0.65
	INT females	27	3.1	0.58
	Total	126	3.4	0.66
	ANOVA: F(2,125)=4.26, p<.05			
Openness	Flight males	39	3.8	0.44
	INT males	60	3.7	0.55
	INT females	27	3.7	0.52
	Total	126	3.7	0.51
	ANOVA: F(2,125)<1, n.s.			

Note. INT = international students; Flight=flight program students.

Table 6b. Pretest instrument means by sample and sex.

		N	Mean	Std. Deviation
Depression (CES-D)	Flight males	38	1.6	0.57
	INT males	53	1.7	0.50
	INT females	26	1.7	0.44
	Total	117	1.7	0.52
	ANOVA: F(2,116)=1.39, n.s.			
Self-Efficacy	Flight males	38	3.3	0.40
	INT males	57	3.2	0.41
	INT females	26	3.0	0.46
	Total	121	3.2	0.43
	ANOVA: F(2,120)=3.35, p<.05			
Emotion Regulation (Reappraisal)	Flight males	38	5.0	0.98
	INT males	52	5.0	0.97
	INT females	26	5.2	0.90
	Total	116	5.0	0.95
	ANOVA: F(2,115)<1, n.s.			
Emotion Regulation (Suppression)	Flight males	38	4.0	1.16
	INT males	52	4.3	1.14
	INT females	26	4.0	1.06

Total 116 4.1 1.13
ANOVA: F(2,115)=1.58, n.s.

Note. INT = international students; Flight=flight program students.

Table 6c. Pretest instrument means by sample and sex.

		N	Mean	Std. Deviation
Optimism (LOT-R)	Flight males	39	3.7	0.58
	INT males	57	3.6	0.68
	INT females	26	3.7	0.67
	Total	122	3.6	0.65
	ANOVA: F(2,121)<1, n.s.			
Life Satisfaction (SWLS)	Flight males	39	5.3	0.95
	INT males	62	4.8	1.16
	INT females	27	5.2	0.98
	Total	128	5.0	1.08
	ANOVA: F(2,127)=3.13, p<.05			
Positive Mood (PANAS)	Flight males	38	2.9	0.45
	INT males	53	2.9	0.52
	INT females	26	2.9	0.48
	Total	117	2.9	0.49
	ANOVA: F(2,116)<1, n.s.			
Negative Mood (PANAS)	Flight males	38	1.6	0.34
	INT males	53	1.7	0.45
	INT females	26	1.6	0.31
	Total	117	1.6	0.39
	ANOVA: F(2,116)<1, n.s.			

Note. INT = international students; Flight=flight program students.

Table 6d. Pretest instrument means by sample and sex.

		N	Mean	Std. Deviation
Coping Relational	Flight males	38	1.7	0.47
	INT males	50	1.7	0.46
	INT females	24	2.0	0.41
	Total	112	1.8	0.46
	ANOVA: F(2,111)=2.50, p<.10			
Coping Active	Flight males	38	2.5	0.36
	INT males	50	2.4	0.41
	INT females	24	2.4	0.32

	Total	112	2.4	0.38
	ANOVA: $F(2,116) < 1$, n.s.			
Coping Avoidance	Flight males	38	1.6	0.33
	INT males	50	1.6	0.33
	INT females	24	1.7	0.28
	Total	112	1.6	0.32
	ANOVA: $F(2,116) < 1$, n.s.			
VIA-Home	Flight males	37	3.6	0.57
	INT males	51	3.9	0.64
	INT females	24	3.9	0.55
	Total	112	3.8	0.61
	ANOVA: $F(2,111) = 3.67$, $p < .05$			
VIA-America	Flight males	37	3.6	0.57
	INT males	51	4.0	0.49
	INT females	24	3.8	0.70
	Total	112	3.8	0.60
	ANOVA: $F(2,111) = 7.42$, $p < .001$			
CIS-Home	Flight males	38	3.3	0.56
	INT males	50	3.5	0.59
	INT females	23	3.4	0.53
	Total	111	3.4	0.57
	ANOVA: $F(2,111) = 3.67$, $p < .05$			

Note. INT = international students; Flight=flight program students.

Dynamic Assessment Instrument

Analysis of the dynamic assessment instrument was limited by the small sample size obtained.

Language proficiency measures. First, we looked at the relationship between scores and English reading ability. Two types of reading ability were available: self-reported English language skills and two baseline SJT items. Only dichotomous and proximity measures could be calculated for these items since answers to these items were either right or wrong. The proximity scores for these items were deviations between the participant's answer and the correct answer, so high values indicate poor performance.

In order to examine performance differences between the two types of baseline items, and to look for sample differences, a series of mixed design ANOVAs were computed. In this and subsequent analyses involving sample differences, we used a three-category variable, Group, that included male flight students, female international students, and male international students. The one female flight student was not included in these analyses. A Group x Baseline Type (grammar, lexical) mixed design ANOVA revealed that the lexical item was more difficult than the grammar item, $M_s = 2.5$ and 1.2 , $F(1,17) = 12.6$, $p < .01$ for proximity scoring. The average

dichotomous score for the grammar baseline item was $M=0.48$, i.e., 48% of participants were correct. Performance on the lexical baseline was only 27% correct, with a large number of missing answers, suggesting that it was too difficult or that not enough time was provided to answer it. However, no difference was found between the two items for dichotomous scoring, $F(1,17)=1.5$, n.s. The Group and the Group x Baseline Type effects did not approach significance in these two analyses. No Group differences approached significance for the four self-report language ability items in one-way ANOVAs.

To examine the relationships among the reading ability measures, correlations were computed between the self-report and SJT baseline measures. The grammar baseline item was found to be unrelated to self-report measures. However, the proximity-scored lexical baseline item was found to be related to self-reported English reading, $r(19)=.58$, $p<.01$, and English listening, $r(19)=.54$, $p<.05$, indicated that participants who rated themselves highly in English language skills performed more poorly on the lexical baseline item, for which high values indicate poorer performance.

Examination of the relationships between the baseline items and self-report language proficiency items on the one hand, and summary SJT performance measures on the other, revealed few significant relationships. The findings for the baseline items indicate that they cannot be used as covariates in analyses involving the SJT. Similarly, the finding that self-report measures of language proficiency were not related to SJT summary scores indicates they cannot be used as covariates, as well.

Load task performance. We looked at performance on the load task, defined as correct recall of the number that was assigned during each trial. Performance values (1=correct, 0=incorrect or no answer) on low load trials and on high load trials were averaged to generate two load performance scores for each participant. A dependent t-test revealed that the load conditions did not differ, $M_s=93\%$ correct and 90% correct for low and high load conditions, respectively, $t(19)=0.45$, n.s. In a Group x Load Level mixed design ANOVA, no effects involving Group approached significance.

Sample performance differences. We had no expectations for differences due to sample or gender in SJT performance, although finding such differences would complicate the correlational results presented in the next section. Group x Load (high/low) mixed design ANOVAs were computed for each of the four performance indices. No effects in these analyses approached significance.

Validation analyses. The primary purpose of the present study was to pilot test the dynamic measurement technique and to use self-report measures to attempt to examine its convergent validity. Several sets of self-report measures were deemed potentially relevant.

The most important and effective means by which sojourners obtain information about a new culture is through simple exposure to it. All participants had entered the United States between 9 and 15 months prior to the SJT phase of the study, so we had little variability in self-reported time in country with which to work. However, the demographics sheet asked participants to list up to five instances of international travel, including destination, duration

abroad, and reason for travel. From these items we calculated three measures of travel: travel in the United States and Canada; travel in English speaking nations, and total travel. Examination of the response distribution suggested that converting all of the travel durations to weeks was most convenient. The three travel variables suffered from high levels of skewness and kurtosis, so they were base log 10 transformed after adding .1 to all values.

Travel in the United States and Canada was expected to be related to SJT performance through both greater familiarity with English and with the relatively similar cultures of these two countries. Travel in all English speaking countries, combined, was expected to produce somewhat weaker relationships. However, only one correlations with SJT performance was significant, travel in English language countries with high-load dichotomous score, $r(18)=-.47$, $p<.05$, opposite to the predicted direction. Only about 27% of participants had travelled in the USA or Canada and 42% in any English speaking nation, so the ranges of these two variables were low. In contrast, 82% of participants reported at least one day of international travel. Correlations between total travel experience and SJT performance indices revealed no relationship that approached significance.

Measures related to obtaining or possessing the cultural information represented in the SJT items include acculturation (VIA-America), contact with host nationals (ICS) and social support (ISSS). No relationships were found between SJT scores and these instruments. More distal to cultural information, but nonetheless strongly related to it, is overall sociocultural adjustment, which reflects the ability to successfully navigate an unfamiliar cultural context. The Sociocultural Adjustment Scale (SCAS) was administered in the third monthly assessment, but analysis of this relationship was not possible due to the small number of participants who completed both of these parts of the study.

Generalized self-efficacy (GSE), to the extent that self-report reflects veridical efficacy, would be expected to extend to cultural competence and culture knowledge. No relationships were found.

We had little theoretical reason to expect relationships between SJT performance and psychological adjustment constructs such as subjective well-being and depression. Satisfaction with life (SWLS) that was reported at the same time that the SJT experiment was conducted was found to be related to dichotomous low-load, $r(17)=-.53$, $p<.05$, and pattern-low load, $r(17)=-.58$, $p<.01$. Participants who were more satisfied performed better. Paradoxically, depression (CES-D), averaged over 4-5 administrations of the CES-D instrument, was related positively to proximity low-load, $r(17)=.49$, $p<.05$. However, depression assessed in the pretest, over a year prior to the SJT experiment, was more strongly related to SJT performance: dichotomous low-load, $r(16)=.59$, $p<.01$, dichotomous high-load, $r(17)=.55$, $p<.05$, pattern low-load, $r(16)=.59$, $p<.01$, pattern high-load, $r(17)=.51$, $p<.01$, in addition to marginally significant relationships with two other SJT indices.

Similarly, we expected no relationships between affect related constructs and performance and none were found involving the PANAS instrument. However, the LOT-R, a measure of optimism assessed in the pretest, was found to be related significantly to five SJT scores, dichotomous low-load, $r(16)=.52$, $p<.05$, proximity low-load, $r(16)=.73$, $p<.001$,

proximity high-load, $r(17)=.48, p <.05$, pattern low-load, $r(16)=.59, p <.01$, and mean deviance low-load, $r(16)=-.71, p <.001$. It was also marginally related to the 3 remaining SJT scores, $ps <.10$. Optimistic participants performed better on the SJT instrument.

We also expected no relationships between coping and emotion regulation constructs. None were found for coping (COPE instrument), but emotion regulation reappraisal was found to be related to all of the high-load SJT indices: dichotomous high-load, $r(17)=.50, p <.05$, proximity high-load, $r(17)=.54, p <.05$, pattern high-load, $r(17)=.55, p <.05$, and mean deviance high-load, $r(17)=-.45, p =.05$. Only one of the low-load indices approached significance, dichotomous low-load.

Several significant or marginal relationships were found with Five Factor Model dimensions: extraversion (6), agreeableness (1), conscientiousness (5), stability/neuroticism (none), and openness (2). Relationships to conscientiousness were strongest in that higher conscientiousness was positively related to better performance.

The analyses reported in this section were repeated with three summary measures of SJT performance. The four high-load indices were averaged after standardization (the mean deviance score z-scores were reversed) to generate a summary high load measure. The same procedure was used for low-load indices. The correlation between the high-load and low-load indices was $r=.70$, justifying averaging them to form a single variable representing overall SJT performance, agnostic with respect to score calculation methods.

Table 7

Correlations between self-report measures and SJT summary measures

	Low Load	High Load	Total
VIA-America	.32	.35	.35
ICS-Quantity	.22	-.12	.03
ICS-Quality	.05	-.17	-.07
Social Support	.20	.33	.29
CES-D pretest	.52*	.47*	.54*
CES-D SJT experiment	.11	.32	.23
CES-D total	.32	.25	.31
SWLS pretest	.08	.09	.09
SWLS SJT experiment	.50*	.04	.29
SWLS total	.12	.09	.11

Self-Efficacy	.26	.30	.30
Optimism (LOT-R)	.68**	.46*	.53*
Mood positive total	.24	.11	.19
Mood negative total	.16	-.12	.01
ER-Reappraisal	.36	.56*	.49*
ER-Suppression	-.03	.10	.04
Extraversion	.48*	.39†	.46*
Agreeableness	.25	.35	.32
Conscientiousness	.36	.66**	.55*
Stability	.05	.19	.13
Openness	.21	.45	.36
Travel experience in USA/Canada	-.11	-.22	-.18

Note. * $p < .05$ ** $p < .01$ † $p < .10$. See text for instrument acronyms and explanations.

Taken together, these findings suggest that psychological adjustment, emotion regulation, and personality are more strongly related to SJT performance than constructs that would be expected to impart information to the participant, directly or indirectly. One possible explanation is that some of these measures are proxies for sample differences, given that the samples tended to differ on the measures that were found to have the strongest relationships to SJT performance. The sample was too small to perform analyses to test this suggestion.

Implicit Association Test

The quality of the IAT responses were examined to look for English language proficiency effects or sample differences. Percent of errors (i.e., misclassifying a type of food) was not related to self-reported English ability, $r < .20$, nor to the baseline SJT measures discussed in the SJT section, $r < .32$. However, a language proficiency test focused on the kind of language used in the IAT and on semantic associations to the terms used would be required to adequately detect problems involving insufficient language skills for this IAT.

Disgust sensitivity has been found to be related to a variety of background and personality variables in previous research (Rozin et al., 2008), most of which are not of interest to the present study. Correlations between the IAT D score and age, religiosity, and social class (parents' education) were examined. Three IAT D scores were used in these analyses: scores for target trials on short blocks, scores for target trials on long blocks, and the total score. The only finding of interest was a negative relationship between age and long block target D scores, $r(18) = -.51$, $p < .05$. This relationship indicates that older participants were more disgusted by the unfamiliar foods. Because the flight student sample was, on average, older than the international

student sample (but less variable), any sample differences in IAT scores may be mediated by this age differential.

To examine sample differences in IAT scores, a one way ANOVA for Group (flight males/international males/international females) was performed. The Group effect was significant for the long block D score, $F(2,16)=6.35$, $p<.01$, partial eta squared = .44. Flight students had lower D scores than international student males and females, who were essentially equal. Adding age as a covariate to the model reduced the Group effect to non-significance, $F(2,15)=2.22$, n.s., although the age covariate was weak, $F<1$. Because age is confounded with sample in this study, there is no way to know if the sample difference was due to age or to other differences between the flight and international students. The sample was too small to investigate this issue adequately, but some suggestive evidence was obtained by looking at the IAT-age relationships within samples. For flight students, the negative relationship trended in the same (negative) direction, but did not do so for the international student sample. Therefore, it appears that using age as a covariate in subsequent analyses is justified.

Our primary interest was in examining the relationship between the disgust IAT and self-report adjustment constructs. Partial correlations between self-report measures and D scores were computed in which age was the covariate.

We expected that negative affective responses to unfamiliar stimuli would be related to skills such as coping and emotion regulation. The correlation between relational coping (COPE-Relational) and D-Long was found to be marginally significant, $r(15)=.43$, $p=.06$, meaning that participants who used relational coping strategies were less negatively affected by disgusting stimuli, controlling for age. Optimism (LOT-R), however, was marginally negatively related to D-Total, $r(15)=-.42$, $p=.07$.

We also expected to find relationships between IAT responses and psychological adjustment. Partial correlations with satisfaction with life (SWLS) assessed in the SJT/IAT phase of the study as well as a summary measure of satisfaction assessments averaged over all administrations throughout the study were related to D scores, $r(15)=-.62$, $p<.01$ and $r(15)=-.58$, $p=.01$, respectively. Higher reported satisfaction was related to greater negative affect in response to culturally novel stimuli, counter to expectations. We looked at this relationship more closely to determine if sample was a confounding variable. Group (flight males; international males and females) was added as a covariate with 2 df by including the variables in an ANOVA model. Satisfaction with life remained significant for both SWLS variables, $F(1,14)=7.76$, $p<.05$ and $F(1,14)=6.30$, $p<.05$, respectively.

Corresponding partial correlation analyses with depression (CES-D) revealed no relationships that approached significance. No relationships were found between D scores and Five Factor Model dimensions.

Discussion

Dynamic Measure Results

The cultural SJT dynamic measure produced mixed findings. Overall, our expectations concerning the load manipulation were not met: SJT performance was not better under low than high load. We expected to find relationships between indicators of greater cultural familiarity and SJT scores, including prior travel experience in the USA and acculturation. However, no such relationships were found. Unexpectedly, however, we found several relationships between SJT performance and measures of emotion regulation, depression, and dispositional optimism. Participants who used reappraisal strategies for regulating their emotions, were lower in depression, higher in optimism, and more satisfied with their lives performed better. Five Factor Model Conscientiousness and Extraversion were also positively related to higher performance.

We speculate that there are several potential explanations for the emotion findings. First, although we found no difference in performance between load conditions, the task may have been stressful. Participants who were better able to manage their stress, either through emotion regulation methods or simply because they were more highly motivated due to high optimism/low depression, may have performed better than those who could not manage stress. When individuals are unskilled at regulating their emotions, they are likely to experience greater depletion of self-regulatory resources when attempting to cope with their affective state (Beal, Weiss, Barros, & MacDermid, 2005). Depleted resources may then hamper the ability to complete subsequent tasks that require self-control (e.g., vigilance tasks; Bauer & Baumeister, 2011; Muraven & Baumeister, 2000). This notion stems from Baumeister and colleagues' model of self-regulation (or self-control), which focuses on the concept of self-regulatory resources (e.g., Baumeister, Bratslavsky, Muraven, & Tice, 1998; Muraven & Baumeister, 2000). We did not include a measure of stress following the SJT task that might have helped shed light on this explanation.

Second, people who were generally better psychologically adjusted may have been able to carry on more and better interactions with host nationals during their relatively short time at the university. Through successful social interaction, they may have learned more about American culture and their English language skills may have benefited. Supporting this interpretation, quality of interaction with Americans (but not quantity) was found to be related negatively to depression, $r(16)=-.58, p<.05$ and positively to satisfaction with life, $r(16)=.48, p<.05$, assessed at the SJT phase of the study. However, a relationship with emotion regulation-appraisal was not found. Travel in English speaking nations was found to be positively related to the lexical baseline task, $r(13)=.55, p<.05$, and to self-reported English language speaking proficiency, $r(115)=.18, p<.05$.

Third, the relationship of conscientiousness with SJT performance reflects the common finding that conscientious people are higher performers in many contexts. More interestingly, conscientiousness, which was measured in the pretest, was found to be positively related to optimism, $r(120)=.23, p<.05$, satisfaction with life in the pretest, $r(133)=.30, p<.05$, emotion regulation-reappraisal, $r(122)=.32, p<.001$, and active coping strategies, $r(117)=.30, p<.001$, and positive affect in the pretest, $r(122)=.43, p<.01$. It was negatively related to avoidant coping

strategies, $r(117)=-.18, p<.05$, and negative affect in the pretest, $r(122)=-.25, p<.01$; and it approached significance in its negative relationship with depression in the pretest, $r(122)=-.16, p<.10$. Conscientious participants were had more positive attitudes toward the quality of their academic experience in the university, $r(38)=.50, p<.001$. A syndrome of personality, affective, emotional, and attitudinal characteristics seems have been related to SJT performance. Taken together, these explanations of the relationships between SJT scores and affect-emotion-personality variables suggest that the SJT may be tapping personality rather than a component of 3C. This is a common criticism of situational judgment tests (e.g., McDaniel & Nguyen, 2001).

This pilot test of a SJT-load dynamic measurement procedure revealed several useful suggestions for refining the instrument. First, the high load condition needs to induce more load. A simple solution would be to require a greater number of digits, e.g., seven rather than five, to be kept in memory during task performance. Second, the time allowed for rank ordering the SJT answers should be longer so that less data are lost through non-responding. Our already very low sample size was additionally compromised by missing data. Third, additional methods are needed for assessing English language skills to function as a covariate. The two baselines items comprise a two-item test, necessarily indicating low reliability. Fourth, the procedure for randomizing the load condition over trials needs to be revised so that all participants receive an equal number of low and high load trials. With a research design involving six trials, the odds of a participant receiving mainly low or high load trials is high, leading to low performance measure reliabilities for some participants. Fifth, additional pretesting of SJT is needed to confirm that appropriate items are used and American comparison data, used for some of the SJT performance index calculations, is stable.

Looking at the assessment context more broadly, even if the dynamic SJT can be adequately revised based on the suggestions offered above, the challenge may be to produce an instrument that assesses 3C rather than personality-related constructs. Additionally, in developing the SJT used in the present study, we contemplated adding an incentive or motivation component in order to be able to reduce individual differences in effort. Individual differences in effort may be an indicator of some 3C components in real or realistic cultural contexts, but it is probably best considered an extraneous variable in the assessment context.

The goal of this kind of measurement is not simply to assess culture knowledge, although knowledge may be prerequisite to performance but rather to assess the application of knowledge in somewhat complex cultural situations. Therefore, the content of SJTs must balance knowledge, situational awareness, and perspective taking competencies. Validation efforts must be aligned with the desired content domain of the SJT. Even though the goal of the “mini-assessment center” is to develop efficient measurement techniques, validating a dynamic SJT may require using formal assessment centers as criterion measures.

Implicit Association Test Results

Results for the IAT component of the study were disappointing. Few relationships were found between psychological adjustment and emotion related self-report measures and IAT scores. One relationship, between satisfaction with life and IAT scores, was in the wrong direction. We speculate that the disgust IAT, as designed, is inappropriate to an international

student sample. Negative affect to strange foods was measured, consistent with the logic of the IAT, by comparing associations between American and strange, non-American foods with “American” and “non-American” concepts as well as positive and negative food adjectives. The IAT depends on automatic associations within cognitive schemata, but international students may lack well developed schemata for both the foods they encounter in the United States and for English adjectives. Hence, if a disgust emotion approach were pursued, the cultural meanings of the foods and the language/text must be considered independently for each tested cultural group. Such a restriction would be feasible if the tested cultural group were Americans facing non-American stimuli, but not feasible if participants from many cultures are studied. Future research using IAT methods should focus on single culture samples and use testing materials specifically designed for the sample. For some samples, the language/text components of the IAT would be presented in a language other than English.

One way to circumvent some of the language issues would be to use a pictorial IAT rather than a purely textual one as employed in the present study. While images of the foods would be quickly recognizable, textual descriptions may not have been so recognizable. Extensive piloting of IAT stimuli is required, with the expectation that more than one stimulus set may be needed in order to create IATs appropriate to different testing populations. If IAT-like methods were adopted as measures of 3C antecedents in the U.S. military, a pool of stimuli suitable to particular testing population might be identified and integrated into a computer adaptive testing (CAT) type of software environment. Military personnel vary in ethnic background, gender, rank, education, and direct experience. These different testing populations would see different stimuli in IATs that are otherwise designed to measure the same construct. Such a CAT-IAT would provide an efficient assessment environment.

Dynamic Measurement and 3C, Revisited

The present research project was undertaken as a first attempt to develop dynamic measurement of cross-cultural competency (3C). As an exploratory study, it served to identify some of the logistical and operational problems related to developing such a measure, as well as to provide a R&D context that could facilitate a deeper examination of broader 3C measurement issues. As noted in the Introduction, dynamic measurement, and mini-assessment centers more generally, are conceptualized as components of an assessment strategy that requires, first, the development of integrated causal-competency models that direct the focus of assessment efforts, and second, the creation of a multimethod or multiple-instrument battery of self-report, dynamic measurement, and possibly implicit instruments. Such batteries are undoubtedly expensive to develop, but given the extensive problems that Gabrenya et al. (2012) found in the existing interments, they may prove necessary. All U.S. military models of 3C propose hierarchically organized lists of competencies, and some models speculate on the antecedents to specific competencies. Research is needed to prioritize competencies and their antecedents, subject, of course, to situational and contextual variation, so that expensive assessment methods can be developed in a cost effective manner.

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Appendix A: Pretest Questionnaire

Welcome to the Florida Tech - School of Psychology International Student Adjustment Project

The project includes three sets of surveys: 1. Questionnaires that you will be asked to complete soon after you arrive in Florida 2. Questionnaires that we will ask you to complete periodically while you are here 3. A final short set of questionnaires that we hope you will complete after returning to your home country. All of the research will be completed online. The first step is to read and agree to the Informed Consent Form. This form is required of all research participants in the United States. The version of the consent form that we are using is specifically designed for studies that are performed on the internet. Click here to see the Informed Consent Form in a new window.

I have read and understand this consent form:

	Yes	No
I have read and understand this consent form, and I agree to participate	<input type="checkbox"/>	<input type="checkbox"/>
I am 18 years old or older	<input type="checkbox"/>	<input type="checkbox"/>

Your name:

Demographics

Directions: In this part of the session we would like to ask you some questions about yourself and your background. We recognize that people have a rich and varied background. Please do your best to give demographic information which you feel best describes you. Remember that all information is strictly confidential. Please do not skip any question if possible.

Your age:

Your sex:

1. Male
2. Female

Your major/program:

Year in university:

1. Freshman
2. Sophomore
3. Junior
4. Senior
5. Graduate Student
6. Flight Student

Legal nationality:

What nation were you born in?

What nation did you attend High School in?

What nation did you attend university in? (or any education after completing high school?)

What is your first language?

How proficient is your use of English?

	Very poor: cannot communicate in most situations	Poor: some ability to communicate, but with difficulty	Good: can communicate in most situations	Excellent: fluent; can communicate in all situations	Native speaker: I am a native speaker of English
Speaking	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Listening	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Reading	<input type="checkbox"/>				
Writing	<input type="checkbox"/>				

How many of your parents were born in the USA?

1. None
2. One
3. Two

Where do you currently live in the Melbourne area?

1. I live in a Florida Tech dormitory
2. I live in an apartment off campus
3. I live in a house off campus
4. Other

If you are an international student, how long have you been in the USA? (total of years)

--

Which of the following best describes you?

1. Christian
2. Jewish
3. Buddhist
4. Islamic
5. Hindu
6. Taoist
7. Atheist
8. Agnostic
9. Spiritual but not religious
10. Other Religion

How religious are you?

	1	2	3	4	5	6	7
Not at all religious[Very religious]	<input type="checkbox"/>						

Father's highest education. Please choose the level of education that is closest to the amount that he experienced.

1. Below primary school (less than 6 years of education)
2. Primary/elementary school (about 6 years of education)
3. Middle school/junior high school (about 8 years of education)
4. High school/secondary school/Lycees (about 11-13 years) (including A-levels)
5. 1, 2 or 3-year technical degree/certificate
6. University/undergraduate/Bachelors or equivalent
7. Masters degree or equivalent
8. Law degree

9. Doctoral degree, PhD, MD, or equivalent
10. Dont know

Mother's education. Please choose the level of education that is closest to the amount that she experienced.

1. Below primary school (less than 6 years of education)
2. Primary/elementary school (about 6 years of education)
3. Middle school/junior high school (about 11-13 years of education)
4. High school/secondary school/Lycees (about 12 years) (including A-levels)
5. 1, 2 or 3-year technical degree/certificate
6. University/undergraduate/Bachelors or equivalent
7. Masters degree or equivalent
8. Law degree
9. Doctoral degree, PhD, MD, or equivalent
10. Don't know

Father's occupation

What is the name of your father's principal occupation (prior to retirement)?

Please briefly describe the type of work that he performs(ed)

Mother's occupation

What is the name of your mother's principal occupation (prior to retirement)?

Please briefly describe the type of work that she performs(ed).

Which of the following best describes where you lived when you were growing up (ages 5 to 15)?

1. Inside of a large city (for example, Orlando, Florida; Birmingham, UK; Ankara, Turkey; Dublin, Ireland)
2. In a suburb near a large city
3. In a small city (for example, Tallahassee, Florida; Liverpool, UK; Eskisehir, Turkey)
4. Near a small city
5. In a rural area - small town, farm

Marital/relationship status

1. Married
2. Have girlfriend/boyfriend/fiancé
3. No relationship at this time

Present location of partner (spouse, girlfriend/boyfriend, fiancé) (city, state, country)

Please tell us about your previous travel experience outside your home country. List the countries, approximately when you were there, how long you stayed, and the reason for your visit (e.g, tourism, language study, business, education).

	Country	Year	Length of stay	Reason for visit
Visit 1				
Visit 2				
Visit 3				
Visit 4				
Visit 5				

At some time we may need to call you on the telephone to remind you to complete a survey or to clarify some information. Would you be willing to provide us your local phone number for this purpose? If so, please enter the phone number here.

Satisfaction With Life Scale

Below are five statements with which you may agree or disagree. Using the 1-7 scale below, indicate your agreement with each item by placing the appropriate number on the line preceding that item. Please be open and honest in your responding.

	Strongly Disagree	Disagree	Slightly Disagree	Neither Agree nor Disagree	Slightly Agree	Agree	Strongly Agree
1. In most ways my life is close to my ideal.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. The conditions of my life are excellent.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. I am satisfied with my life	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. So far I have gotten the important things I want in life.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. If I could live my life over, I would change almost nothing.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Personality Questionnaire

Here are a number of characteristics that may or may not apply to you. For example, do you agree that you are someone who likes to spend time with others? Please indicate the extent to which you agree or disagree with each statement. This questionnaire includes 44 items altogether, presented in sets of 11. I see myself as someone who...

	Disagree strongly	Disagree a little	Neither agree nor disagree	Agree a little	Agree strongly
1. Is talkative	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Tends to be critical or find fault	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Does a thorough job	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Is depressed, blue	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. Is original, comes up with new ideas	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. Is reserved or quiet	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. Is helpful and unselfish with others	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. Can be somewhat careless	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9. Is relaxed, handles stress well	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10. Is curious about many different things	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11. Is full of energy	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

I see myself as someone who...

	Disagree strongly	Disagree a little	Neither agree nor disagree	Agree a little	Agree strongly
12. Starts quarrels or arguments with others	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13. Is a reliable worker	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
14. Can be tense	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15. Is ingenious, a creative thinker	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
16. Generates a lot of enthusiasm	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
17. Has a forgiving nature	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
18. Tends to be disorganized	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
19. Worries a lot	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
20. Has an active imagination	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
21. Tends to be quiet	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
22. Is generally trusting	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

I see myself as someone who...

	Disagree strongly	Disagree a little	Neither agree nor disagree	Agree a little	Agree strongly
23. Tends to be lazy	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
24. Is emotionally stable, not easily upset	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
25. Is inventive or creative	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
26. Has an assertive or self-confident personality	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
27. Can be cold and aloof	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
28. Perseveres or persists until the task is finished	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
29. Can be moody	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
30. Values artistic, aesthetic experiences	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
31. Is sometimes shy, inhibited	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
32. Is considerate and kind to almost everyone	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
33. Does things efficiently	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

I see myself as someone who...

	Disagree strongly	Disagree a little	Neither agree nor disagree	Agree a little	Agree strongly

emotion, I change the way I'm thinking about the situation							
8. I control my emotions by changing the way I think about the situation I'm in	<input type="checkbox"/>						
9. When I am feeling negative emotions, I make sure not to express them	<input type="checkbox"/>						
10. When I want to feel less negative emotion, I change the way I'm thinking about the situation	<input type="checkbox"/>						

Mood Questionnaire

How much of the time during the past week...

	Rarely or almost none of the time (less than 1 day)	Some of a Little of the Time (1-2 days)	Occasionally or a Moderate Amount of the Time (3-4 days)	Most or All of the Time (5-7 days)
...you felt depressed?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
...you felt everything you did was an effort or difficult to get started?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
...your sleep was restless or you didn't sleep?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
...you were happy?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
...you felt lonely?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
...you enjoyed life?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
...you felt sad?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
...you could not get going?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Mood Scale

Listed below are a number of words that describe different feelings and emotions. Please read each item and indicate the extent to which you feel this way IN GENERAL, that is, ON THE AVERAGE.

	Not At All	Somewhat	Very Much	Totally
1. INTERESTED	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. DISTRESSED	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. EXCITED	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

4. UPSET	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. STRONG	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. GUILTY	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. SCARED	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. HOSTILE	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9. ENTHUSIASTIC	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10. PROUD	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11. IRRITABLE	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12. ALERT	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13. ASHAMED	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
14. INSPIRED	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15. NERVOUS	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
16. DETERMINED	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
17. ATTENTIVE	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
18. JITTERY, JUMPY, ON EDGE, STRESSED OUT	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
19. ACTIVE	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
20. AFRAID	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Self-Concept Questionnaire

For each of the following statements, please indicate how much you agree that the statement is true for you. The questions ask about your opinion. There are no right or wrong answers.

	Strongly Disagree	Disagree	Agree	Strongly Agree
1. I can always manage to solve difficult problems if I try hard enough.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. If someone opposes me, I can find means and ways to get what I want.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. It is easy for me to stick to my aims and accomplish my goals.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. I am confident that I could deal efficiently with unexpected events.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. Thanks to my resourcefulness or capabilities, I know how to handle unforeseen or unexpected situations.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. I can solve most problems if I invest the necessary effort.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. I can remain calm when facing difficulties because I can rely on my coping abilities.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. When I am confronted with a problem, I can	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

usually find several solutions.				
9. If I am in trouble, I can usually think of something to do.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10. No matter what comes my way, I'm usually able to handle it.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Life Attitudes Questionnaire

Please be as honest and accurate as you can throughout. Try not to let your response to one statement influence your responses to other statements. There are no correct or incorrect answers. Answer according to your own feelings, rather than how you think most people would answer.

	I DISagree a lot	I DISagree a little	I neither agree nor disagree	I agree a little	I agree a lot
1. In uncertain times, I usually expect the best.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Its easy for me to relax.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. If something can go wrong for me, it will.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Im always optimistic about my future.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. I enjoy my friends a lot.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. Its important for me to keep busy.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. I hardly ever expect things to go my way.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. I dont get upset too easily.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9. I rarely count on good things happening to me.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10. Overall, I expect more good things to happen to me than bad.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Coping With Stress

We are interested in how people respond when they confront difficult or stressful events in their lives. There are lots of ways to try to deal with stress. This questionnaire asks you to indicate what you generally do and feel, when you experience stressful events. Obviously, different events bring out somewhat different responses, but think about what you usually do when you are under a lot of stress. Then respond to each of the following items by indicating how often you use this method. Choose your answers thoughtfully, and make your answers as true FOR YOU as you can. There are no right or wrong answers, so choose the most accurate answer for YOU--not what you think most people would say or do. Indicate what YOU usually do when YOU experience a stressful event. This questionnaire has 30 items, divided into two parts of 15 questions each.

	I usually don't do this at all	I usually do this a little bit	I usually do this a lot
1. I accept that it (the stressful event) happened and that it cant be changed	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. I try to see it in a different perspective to make it seem more positive.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. I give up trying to deal with it.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. I try to get emotional support from my spouse or girlfriend/boyfriend.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. I make jokes about it.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. I try to get help and advice from friends.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. I try to come up with a strategy or plan about what to do.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. I try to get emotional support from parents or relatives.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9. I try to find comfort in my religion or spiritual beliefs.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10. I blame myself for not finding a solution to the situation.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11. I turn to work, study, or other substitute activities to take my mind off it or to stop thinking about it	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12. I take medications or drink alcohol to feel better.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13. I express my emotions to other people.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
14. I blame myself for what happened	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15. I learn to live with it.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

We are interested in how people respond when they confront difficult or stressful events in their lives. There are lots of ways to try to deal with stress. This questionnaire asks you to indicate what you generally do and feel, when you experience stressful events. Obviously, different events bring out somewhat different responses, but think about what you usually do when you are under a lot of stress. Then respond to each of the following items by indicating how often you use this method. Choose your answers thoughtfully, and make your answers as true FOR YOU as you can. There are no right or wrong answers, so choose the most accurate answer for YOU--not what you think most people would say or do. Indicate what YOU usually do when YOU experience a stressful event.

	I usually don't do this at all	I usually do this a little bit	I usually do this a lot
16. I take action to try to make the situation better.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
17. I say to myself this isnt real.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
18. I try to get emotional support from friends, or fellow students/coworkers.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
19. I make fun of or laugh at the situation.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

20. I try to get help and advice from my parents or relatives.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
21. I think hard about what steps to take next.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
22. I look for something good in what happened	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
23. I pray or meditate.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
24. I try to get emotional support from members of my religious community or religious leaders.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
25. I criticize myself.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
26. In order to think about it less, I distract myself by going to movies, watching TV, reading, daydreaming, sleeping, or shopping.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
27. I complain to others to release my unpleasant feelings.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
28. I refuse to believe that it has happened.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
29. I concentrate my efforts on doing something about it	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
30. I try to get advice from my spouse or girlfriend/boyfriend.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Acculturation Index

My native country or culture:

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Please answer each question as carefully as possible by indicating your degree of agreement or disagreement. Many of these questions will refer to your native culture or home country, meaning the culture that has influenced you the most (other than American culture). It may be the culture of your birth or the culture in which you have been raised. If there are several such cultures, pick the one that has influenced you the most.

	Disagree strongly	Disagree a little	Neither agree nor disagree	Agree a little	Agree strongly
1. I often participate in my native cultural traditions.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. I would be willing to marry a person from my native country.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. I would be willing to marry an American person.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. I enjoy social activities with people from the same country as myself.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. I am comfortable working with people from the same country as myself.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

8. I am comfortable working with typical American people.	<input type="checkbox"/>				
9. I enjoy entertainment (e.g., movies, music) from my native culture.	<input type="checkbox"/>				
10. I enjoy American entertainment (e.g., movies, music).	<input type="checkbox"/>				
11. I often behave in ways that are typical of my native culture.	<input type="checkbox"/>				
13. It is important for me to maintain or develop the practices of my native culture.	<input type="checkbox"/>				
15. I believe in the values of my native culture.	<input type="checkbox"/>				
17. I enjoy the jokes and humor of my native culture.	<input type="checkbox"/>				
18. I enjoy typical American jokes and humor.	<input type="checkbox"/>				
19. I am interested in having friends from my native country.	<input type="checkbox"/>				
20. I am interested in having American friends.	<input type="checkbox"/>				

Identity Questionnaire

This questionnaire concerns your beliefs and feelings about being a citizen of your home country and living in your country. Please indicate how much you agree with each of these statements on the 5-point scale.

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1. I feel strong ties to people from my home country.	<input type="checkbox"/>				
2. Overall, being a citizen of my country has very little to do with how I feel about myself.	<input type="checkbox"/>				
3. I find it difficult to form a bond or feel connected with other people from my home country.	<input type="checkbox"/>				
4. In general, thinking and acting like a typical citizen of my country is an important part of how I see myself.	<input type="checkbox"/>				
5. I have a lot in common with other people from my home country.	<input type="checkbox"/>				
6. I often regret that I am a citizen of my country.	<input type="checkbox"/>				
7. I often think about the fact that I am a	<input type="checkbox"/>				

citizen of my country.					
8. In general, I am glad to have ideas similar to those of other people in my country.	<input type="checkbox"/>				
9. The fact that I am a citizen of my country rarely enters my mind.	<input type="checkbox"/>				

Thank You!

This completes the initial questionnaire set for the International Student Adjustment Project. We will contact you soon to ask you to complete some additional short questionnaires.

Appendix B: Monthly 1 questionnaire

Brief Monthly Assessment International Student Adjustment Project College of Aeronautics - School of Psychology

Thank you for completing this brief set of questionnaires.

Mood Scale

Listed below are a number of words that describe different feelings and emotions. Please read each item and indicate the extent to which you feel this way TODAY, that is, ALL OF TODAY, ON THE AVERAGE.

	Not At All	Somewhat	Very Much	Totally
1. INTERESTED	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. DISTRESSED	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. EXCITED	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. UPSET	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. STRONG	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. GUILTY	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. SCARED	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. HOSTILE	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9. ENTHUSIASTIC	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10. PROUD	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11. IRRITABLE	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12. ALERT	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13. ASHAMED	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
14. INSPIRED	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15. NERVOUS	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
16. DETERMINED	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
17. ATTENTIVE	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
18. JITTERY, JUMPY, ON EDGE, STRESSED OUT	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
19. ACTIVE	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
20. AFRAID	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Experiences This Week

This short questionnaire asks about events that you have experienced recently.

Did something especially stressful, troubling or irritating happen to you at school or in training over the last week? If so, please describe the event or situation briefly.

How important was this event to your educational/training program?

1. Not at all important
2. Somewhat UNimportant
3. Neutral
4. Somewhat important
5. Very important

How stressful or bothersome is this event for you?

1. Not at all stressful or bothersome
2. Somewhat non-stressful or not bothersome
3. Neutral
4. Somewhat stressful or bothersome
5. Very stressful or bothersome

Did something stressful or upsetting happen to you in your personal life, here or back home, over the last week? If so, please describe the event or situation briefly.

How important is this event to your personal life?

1. Not at all important
2. Somewhat UNimportant
3. Neutral
4. Somewhat important
5. Very important

How stressful or bothersome is this event for you?

1. Not at all stressful or bothersome
2. Somewhat non-stressful or not bothersome
3. Neutral
4. Somewhat stressful or bothersome
5. Very stressful or bothersome

Satisfaction with Life Scale

Below are five statements with which you may agree or disagree. Using the 1-7 scale below, indicate your agreement with each item by placing the appropriate number on the line preceding that item. Please be open and honest in your responding.

	Strongly Disagree	Disagree	Slightly Disagree	Neither Agree nor Disagree	Slightly Agree	Agree	Strongly Agree
1. In most ways my life is close to my ideal.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. The conditions of my life are excellent.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. I am satisfied with my life	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. So far I have gotten the important things I want in life.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. If I could live my life over, I would change almost nothing.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Mood Questionnaire

How much of the time during the past week...

	Rarely or almost none of the time (less than 1 day)	Some of a Little of the Time (1-2 days)	Occasionally or a Moderate Amount of the Time (3-4 days)	Most or All of the Time (5-7 days)
...you felt depressed?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
...you felt everything you did was an effort or difficult to get started?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
...your sleep was restless or you didnt sleep?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
...you were happy?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
...you felt lonely?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

...you enjoyed life?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
...you felt sad?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
...you could not get going?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Appendix C: Monthly 2 questionnaire

Brief Monthly Assessment International Student Adjustment Project College of Aeronautics - School of Psychology

Thank you for completing this brief set of questionnaires.

Mood Scale

Listed below are a number of words that describe different feelings and emotions. Please read each item and indicate the extent to which you feel this way TODAY, that is, ALL OF TODAY, ON THE AVERAGE.

	Not At All	Somewhat	Very Much	Totally
1. INTERESTED	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. DISTRESSED	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. EXCITED	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. UPSET	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. STRONG	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. GUILTY	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. SCARED	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. HOSTILE	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9. ENTHUSIASTIC	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10. PROUD	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11. IRRITABLE	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12. ALERT	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13. ASHAMED	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
14. INSPIRED	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15. NERVOUS	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
16. DETERMINED	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
17. ATTENTIVE	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
18. JITTERY, JUMPY, ON EDGE, STRESSED OUT	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
19. ACTIVE	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
20. AFRAID	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Experiences This Week

This short questionnaire asks about events that you have experienced recently.

Did something especially stressful, troubling or irritating happen to you at school or in training over the last week? If so, please describe the event or situation briefly.

How important was this event to your educational/training program?

6. Not at all important
7. Somewhat UNimportant
8. Neutral
9. Somewhat important
10. Very important

How stressful or bothersome is this event for you?

6. Not at all stressful or bothersome
7. Somewhat non-stressful or not bothersome
8. Neutral
9. Somewhat stressful or bothersome
10. Very stressful or bothersome

Did something stressful or upsetting happen to you in your personal life, here or back home, over the last week? If so, please describe the event or situation briefly.

How important is this event to your personal life?

6. Not at all important
7. Somewhat UNimportant
8. Neutral
9. Somewhat important
10. Very important

How stressful or bothersome is this event for you?

- 6. Not at all stressful or bothersome
- 7. Somewhat non-stressful or not bothersome
- 8. Neutral
- 9. Somewhat stressful or bothersome
- 10. Very stressful or bothersome

Satisfaction with Life Scale

Below are five statements with which you may agree or disagree. Using the 1-7 scale below, indicate your agreement with each item by placing the appropriate number on the line preceding that item. Please be open and honest in your responding.

	Strongly Disagree	Disagree	Slightly Disagree	Neither Agree nor Disagree	Slightly Agree	Agree	Strongly Agree
1. In most ways my life is close to my ideal.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. The conditions of my life are excellent.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. I am satisfied with my life	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. So far I have gotten the important things I want in life.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. If I could live my life over, I would change almost nothing.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Mood Questionnaire

How much of the time during the past week...

	Rarely or almost none of the time (less than 1 day)	Some of a Little of the Time (1-2 days)	Occasionally or a Moderate Amount of the Time (3-4 days)	Most or All of the Time (5-7 days)
...you felt depressed?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
...you felt everything you did was an effort or difficult to get started?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
...your sleep was restless or you didn't sleep?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
...you were happy?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
...you felt lonely?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

...you enjoyed life?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
...you felt sad?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
...you could not get going?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Appendix D: Monthly 3 questionnaire

Brief Monthly Assessment International Student Adjustment Project College of Aeronautics - School of Psychology

Thank you for completing this brief set of questionnaires.

Mood Scale

Listed below are a number of words that describe different feelings and emotions. Please read each item and indicate the extent to which you feel this way TODAY, that is, ALL OF TODAY, ON THE AVERAGE.

	Not At All	Somewhat	Very Much	Totally
1. INTERESTED	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. DISTRESSED	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. EXCITED	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. UPSET	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. STRONG	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. GUILTY	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. SCARED	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. HOSTILE	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9. ENTHUSIASTIC	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10. PROUD	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11. IRRITABLE	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12. ALERT	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13. ASHAMED	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
14. INSPIRED	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15. NERVOUS	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
16. DETERMINED	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
17. ATTENTIVE	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
18. JITTERY, JUMPY, ON EDGE, STRESSED OUT	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
19. ACTIVE	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
20. AFRAID	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Experiences This Week

This short questionnaire asks about events that you have experienced recently.

Did something especially stressful, troubling or irritating happen to you at school or in training over the last week? If so, please describe the event or situation briefly.

How important was this event to your educational/training program?

1. Not at all important
2. Somewhat UNimportant
3. Neutral
4. Somewhat important
5. Very important

How stressful or bothersome is this event for you?

1. Not at all stressful or bothersome
2. Somewhat non-stressful or not bothersome
3. Neutral
4. Somewhat stressful or bothersome
5. Very stressful or bothersome

Did something stressful or upsetting happen to you in your personal life, here or back home, over the last week? If so, please describe the event or situation briefly.

How important is this event to your personal life?

1. Not at all important
2. Somewhat UNimportant
3. Neutral
4. Somewhat important
5. Very important

How stressful or bothersome is this event for you?

1. Not at all stressful or bothersome
2. Somewhat non-stressful or not bothersome

- 3. Neutral
- 4. Somewhat stressful or bothersome
- 5. Very stressful or bothersome

Satisfaction with Life Scale

Below are five statements with which you may agree or disagree. Using the 1-7 scale below, indicate your agreement with each item by placing the appropriate number on the line preceding that item. Please be open and honest in your responding.

	Strongly Disagree	Disagree	Slightly Disagree	Neither Agree nor Disagree	Slightly Agree	Agree	Strongly Agree
1. In most ways my life is close to my ideal.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. The conditions of my life are excellent.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. I am satisfied with my life	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. So far I have gotten the important things I want in life.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. If I could live my life over, I would change almost nothing.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Mood Questionnaire

How much of the time during the past week...

	Rarely or almost none of the time (less than 1 day)	Some of a Little of the Time (1-2 days)	Occasionally or a Moderate Amount of the Time (3-4 days)	Most or All of the Time (5-7 days)
...you felt depressed?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
...you felt everything you did was an effort or difficult to get started?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
...your sleep was restless or you didnt sleep?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
...you were happy?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
...you felt lonely?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
...you enjoyed life?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
...you felt sad?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
...you could not get going?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Sociocultural Adaptation Scale (SCAS)

Please indicate how much difficulty you experience living in the United States in each of these areas.

1. Making friends.

1. No difficulty
2. Slight difficulty
3. Moderate difficulty
4. Great difficulty
5. Extreme difficulty

2. Finding food that you enjoy.

1. No difficulty
2. Slight difficulty
3. Moderate difficulty
4. Great difficulty
5. Extreme difficulty

3. Following rules and regulations.

1. No difficulty
2. Slight difficulty
3. Moderate difficulty
4. Great difficulty
5. Extreme difficulty

4. Dealing with people in authority.

1. No difficulty
2. Slight difficulty
3. Moderate difficulty
4. Great difficulty
5. Extreme difficulty

5. Taking an American perspective on the culture.

1. No difficulty
2. Slight difficulty
3. Moderate difficulty
4. Great difficulty
5. Extreme difficulty

6. Using the transport system.

1. No difficulty
2. Slight difficulty
3. Moderate difficulty
4. Great difficulty
5. Extreme difficulty

7. Dealing with bureaucracy.

1. No difficulty
2. Slight difficulty
3. Moderate difficulty
4. Great difficulty
5. Extreme difficulty

8. Understanding the American value system.

1. No difficulty
2. Slight difficulty
3. Moderate difficulty
4. Great difficulty
5. Extreme difficulty

9. Making yourself understood.

1. No difficulty
2. Slight difficulty
3. Moderate difficulty
4. Great difficulty
5. Extreme difficulty

10. Seeing things from an American point of view.

1. No difficulty
2. Slight difficulty
3. Moderate difficulty
4. Great difficulty
5. Extreme difficulty

11. Going shopping.

1. No difficulty
2. Slight difficulty
3. Moderate difficulty
4. Great difficulty
5. Extreme difficulty

12. Dealing with someone who is unpleasant.

1. No difficulty
2. Slight difficulty
3. Moderate difficulty
4. Great difficulty
5. Extreme difficulty

13. Understanding jokes and humor.

1. No difficulty
2. Slight difficulty

3. Moderate difficulty
4. Great difficulty
5. Extreme difficulty

14. Accommodation.

1. No difficulty
2. Slight difficulty
3. Moderate difficulty
4. Great difficulty
5. Extreme difficulty

15. Going to social gatherings.

1. No difficulty
2. Slight difficulty
3. Moderate difficulty
4. Great difficulty
5. Extreme difficulty

16. Dealing with people staring at you.

1. No difficulty
2. Slight difficulty
3. Moderate difficulty
4. Great difficulty
5. Extreme difficulty

17. Communicating with people of a different ethnic group.

1. No difficulty
2. Slight difficulty
3. Moderate difficulty
4. Great difficulty
5. Extreme difficulty

18. Understanding ethnic or cultural differences.

1. No difficulty
2. Slight difficulty
3. Moderate difficulty
4. Great difficulty
5. Extreme difficulty

19. Dealing with unsatisfactory service.

1. No difficulty
2. Slight difficulty
3. Moderate difficulty
4. Great difficulty
5. Extreme difficulty

20. Worshipping.
 1. No difficulty
 2. Slight difficulty
 3. Moderate difficulty
 4. Great difficulty
 5. Extreme difficulty

21. Relating to members of the opposite sex.
 1. No difficulty
 2. Slight difficulty
 3. Moderate difficulty
 4. Great difficulty
 5. Extreme difficulty

22. Finding your way around.
 1. No difficulty
 2. Slight difficulty
 3. Moderate difficulty
 4. Great difficulty
 5. Extreme difficulty

23. Understanding the American political system.
 1. No difficulty
 2. Slight difficulty
 3. Moderate difficulty
 4. Great difficulty
 5. Extreme difficulty

24. Talking about yourself with others.
 1. No difficulty
 2. Slight difficulty
 3. Moderate difficulty
 4. Great difficulty
 5. Extreme difficulty

25. Dealing with the climate.
 1. No difficulty
 2. Slight difficulty
 3. Moderate difficulty
 4. Great difficulty
 5. Extreme difficulty

26. Understanding the American world view.
 1. No difficulty
 2. Slight difficulty
 3. Moderate difficulty

4. Great difficulty
5. Extreme difficulty

27. Family relationships.

1. No difficulty
2. Slight difficulty
3. Moderate difficulty
4. Great difficulty
5. Extreme difficulty

28. The pace of life.

1. No difficulty
2. Slight difficulty
3. Moderate difficulty
4. Great difficulty
5. Extreme difficulty

29. Being able to see two sides of an intercultural issue.

1. No difficulty
2. Slight difficulty
3. Moderate difficulty
4. Great difficulty
5. Extreme difficulty

Appendix E: SJT items

Example Question

Veronica is a new international student from Argentina. When she arrives on campus for the first time, she is greeted by a university employee who asks her for some documents that the university had mailed to her the previous month. Veronica accidentally left the documents in her family's house in Buenos Aires.

What should Veronica say to the university employee?

1. She never received the documents from the university.
2. She will ask her parents to fax the documents to the university today.
3. The documents are probably not important, so she will enter the university without them.
4. The university employee is being rude by asking for the documents

Grammar Baseline

Tom is studying for a final exam, one part of which involves math problems and another part of which requires answering factual questions based on both lecture and textbook material. Tom was sick during part of the course, but were he to have attended all of the classes, he might have been able to answer the lecture-based questions more readily. If Tom had made more friends in the class, he would have been able to have studied the material that he missed with one or more of them. When Tom was sick, he read the textbook carefully even though he was not attending class.

What is Tom's primary problem in studying for the exam?

1. He does not know enough about the lecture material.
2. He does not know enough about the textbook material.
3. He has too many friends in the class and they are distracting him.
- 4 He is sick and cannot do well on the exam.

Alice is a very kind and quiet person at work. When the coworkers get together to play a soccer game, she becomes extremely competitive. When George accidentally slips and runs into Alice, she yells at him, claiming that it was intentional and insults him.

Why doesn't anybody say anything about Alice's reaction?

1. They support her competitiveness
2. They are afraid of Alice
3. George actually did intentionally run into Alice
4. Nobody likes George

Professor Mary Stinson works at a small liberal arts university with a large international population and has a few international students in her English class. One student of the international students does not turn his assignments in on time and misses class frequently. When Professor Stinson gives him a bad grade at the end of the semester, he marches into her office to

ask her to explain his grade and asks her to change it. Professor Stinson is appalled and the sterner she is with him, the more insistent he becomes.

What can explain the professor's reaction?

1. In America, grades are based on objective criteria, and are not negotiable
2. In America, it is common for students to argue their grades, but this is the 8th student who approached her that day and she has lost her patience
3. Students who negotiate their grades should bring a gift
4. The student is being too assertive in arguing for a better grade he should be more polite

Your family lives in your home country and you pay an extra monthly fee to be able to receive calls from your country on your cell phone. In the first week of your new job, your father calls you one day and your mother calls you another day. Both times you step outside to take the call and each call lasts about 15 minutes.

Why do your coworkers look at you unhappily upon your return?

1. They wish they received phone calls from their family as frequently as you do
2. They think you are wasting time by talking on the phone during work
3. They wish to ask you about how your family is doing, but they do not know you well enough yet
4. They do not understand why you speak with your family for only 15 minutes, seeing as they are calling from so far away

Rick is Jason's roommate in a university dormitory. It is finals week, and they are studying. Rick's mother calls on him on his computer (using Skype) and wants to discuss some important family matters in detail, which will require about an hour. Rick told his mother that he was studying and had no time to talk to her. He hangs up without saying 'goodbye.' (Jason hears the conversation because Rick's computer speakers are on.)

How should Jason interpret Rick's behavior?

1. Rick is inconsiderate and unkind
2. Rick does not like his mother
3. Rick did not want to discuss the particular family issue that his mother called about
4. Rick was annoyed because his mother knew it was finals week and he was very busy

Jane is Ann's good friend. One day, Ann needed to go to another city about 50 miles away, but her car had broken down. Ann asked Jane whether she could drive her there, and Jane said yes. After they came back, Jane asked Ann to pay for the gas.

What should Ann do?

1. Offer to help Jane the next time when she needs help
2. Pay for the gas and thank Jane for the ride
3. Realize that Jane is stingy and decide not to be her friend any more
4. Buy Jane a gift instead of paying for the gas

Katarina, an international student, is invited by a classmate to a party at her home. Soon after Katarina arrives, she is approached by a woman she does not know, Betsy. After chatting for a few minutes Betsy says, 'I think I will get another drink' and walks away.

Why did Betsy walk away?

1. She felt it was time to move on and talk to someone else
2. Betsy saw an old friend across the room and was anxious to talk to her
3. Betsy was having difficulty understanding Katarina's English
4. Betsy had been talking for a while at the party and needed a drink

Lexical baseline

John has been invited to a dinner party hosted by the engineering honor society that he has joined. Altogether, about 25 students are at the party. The honor society president offers a toast before dinner begins, saying 'I love this club, it's really bad. Tonight I'm going to give you all the scoop on why we hope the international students in the club won't be deported in the morning.'

What does he mean?

1. He likes the honor society despite how bad it is, and he has very few reasons for thinking that the international students will not be deported soon for some reason
2. He wants the international students to lose some weight, and he thinks some have invalid visas
3. The honor society is very cool, and he is going to tell everyone the truth about how much he likes the international student members
4. (He is sloshed, and is talking trash in his loopy toast)

Appendix F: SJT screens

Situational Judgment Test - Instructions

This section of the experiment is a multiple choice quiz concerning social situations that university students often experience. Your task is to decide what should be done in the situation, or what someone in the situation is doing or thinking.

To get an accurate measure of your judgment ability, we will make the quiz a little more difficult to asking you to remember some numbers while you are answering each question. Sometimes you will be asked to remember a single number and sometimes a longer number.

It is a timed test. Each question is timed individually.

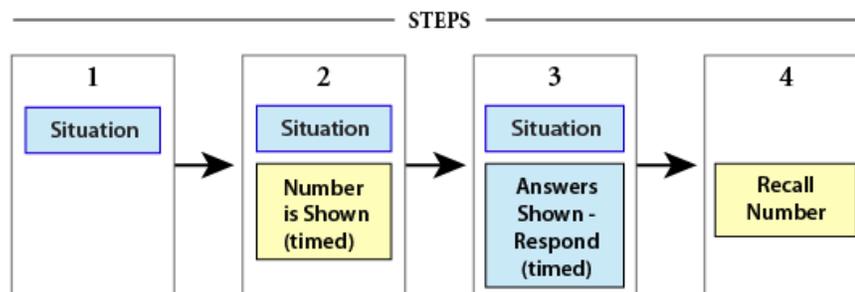
We will show you a sample question, then the real quiz will begin.

For each question, first you will see the situation in a short paragraph. After you have finished reading it, you will be given the number to remember.

Then you will see the situation again, plus four possible answers. You will have a fixed amount of time to consider your answers. **Rank order** how good each answer is, from **1=best** answer to **4=worst**. When time is up, you will be asked to enter the number that you memorized.

Summary:

1. Situation only
2. Number to remember appears briefly. Do not write down the number!
3. Situation with answers is presented - Rank the solutions (timed)
4. Type the number you remembered
5. (continue to next question)



A practice trial follows these instructions.

id = 666

Please click on the Continue button below.

Continue

[VIEW INSTRUCTIONS](#)

Trial: Example Situation

Click on the Continue button to begin this trial.

Continue

Situation Description:

Example Question

Veronica is a new international student from Argentina. When she arrives on campus for the first time, she is greeted by a university employee who asks her for some documents that the university had mailed to her the previous month. Veronica accidentally left the documents in her family's house in Buenos Aires.

What should Veronica say to the university employee?

When you have finished reading the scenario, click on the Continue button below.

Continue

Please memorize this number: 4

Do not write it down!

You will be asked to recall it on the next screen:

0:01

Time remaining to answer the question:

Please choose the best answers to the question.

Example Question

Veronica is a new international student from Argentina. When she arrives on campus for the first time, she is greeted by a university employee who asks her for some documents that the university had mailed to her the previous month. Veronica accidentally left the documents in her family's house in Buenos Aires.

What should Veronica say to the university employee?

[Rank the answers from **1=best** answer to **4=worst** answer. These are pop-up menus.]

- She never received the documents from the university.
- She will ask her parents to fax the documents to the university today.
- The documents are probably not important, so she will enter the university without them.
- The university employee is being rude by asking for the documents

Time remaining to answer the question:

Please choose the best answers to the question.

Katarina, an international student, is invited by a classmate to a party at her home. Soon after Katarina arrives, she is approached by a woman she does not know, Betsy. After chatting for a few minutes Betsy says, 'I think I will get another drink' and walks away.

Why did Betsy walk away?

[Rank the answers from **1=best** answer to **4=worst** answer. These are pop-up menus.]

- She felt it was time to move on and talk to someone else
- Betsy saw an old friend across the room and was anxious to talk to her
- Betsy was having difficulty understanding Katarina's English
- Betsy had been talking for a while at the party and needed a drink

Enter the number you were asked to remember:

Please click on the Continue button below.

Appendix G: Calculation of SJT Performance Scores

* ----- dichotomous -----

* ordercond answer1_1 answer2_1 answer3_1 answer4_2 tasknumber numbergiven_1
starttime_1 endtime_1
questiontime_1

* d is dichotomous right/wrong

* w is weighted: pattern matching, max value is 6

* p is proximity: number of positions away from the best pretested answer where:
only look at the highest rank choice and give it points in terms of how close it is to the first
choice of the pretest
max value is 3

* s is sum of absolute deviances, like sum of squares

missing values answer1_1, answer1_2, answer1_3, answer1_4, answer1_5, answer1_6,
answer1_7, answer1_8 answer1_9 (99).

missing values answer2_1, answer2_2, answer2_3, answer2_4, answer2_5, answer2_6,
answer2_7, answer2_8 answer2_9 (99).

missing values answer3_1, answer3_2, answer3_3, answer3_4, answer3_5, answer3_6,
answer3_7, answer3_8 answer3_9 (99).

missing values answer4_1, answer4_2, answer4_3, answer4_4, answer4_5, answer4_6,
answer4_7, answer4_8 answer4_9 (99).

execute.

compute sjt_dupsum1=sum(answer1_1, answer2_1, answer3_1, answer4_1).

compute sjt_dupsum2=sum(answer1_2, answer2_2, answer3_2, answer4_2).

compute sjt_dupsum3=sum(answer1_3, answer2_3, answer3_3, answer4_3).

compute sjt_dupsum4=sum(answer1_4, answer2_4, answer3_4, answer4_4).

compute sjt_dupsum5=sum(answer1_5, answer2_5, answer3_5, answer4_5).

compute sjt_dupsum6=sum(answer1_6, answer2_6, answer3_6, answer4_6).

compute sjt_dupsum7=sum(answer1_7, answer2_7, answer3_7, answer4_7).

compute sjt_dupsum8=sum(answer1_8, answer2_8, answer3_8, answer4_8).

compute sjt_dupsum9=sum(answer1_9, answer2_9, answer3_9, answer4_9).

execute.

DO IF missing(answer1_2) AND sjt_dupsum2 GT 0.

compute sjt_dupmatch2=9.

ELSE.

compute sjt_dupmatch2=sum((answer3_2=answer2_2) , (answer1_2=answer3_2) ,
(answer1_2=answer4_2) ,
(answer2_2=answer3_2) ,(answer2_2=answer4_2) ,(answer3_2=answer4_2)).

END IF.

```
DO IF missing(answer1_3) AND sjt_dupsum3 GT 0.  
  compute sjt_dupmatch3=9.  
ELSE.  
  compute sjt_dupmatch3=sum((answer3_3=answer2_3) , (answer1_3=answer3_3) ,  
(answer1_3=answer4_3) ,  
(answer2_3=answer3_3) ,(answer2_3=answer4_3) ,(answer3_3=answer4_3)).  
END IF.
```

```
DO IF missing(answer1_4) AND sjt_dupsum4 GT 0.  
  compute sjt_dupmatch4=9.  
ELSE.  
  compute sjt_dupmatch4=sum((answer3_4=answer2_4) , (answer1_4=answer3_4) ,  
(answer1_4=answer4_4) ,  
(answer2_4=answer3_4) ,(answer2_4=answer4_4) ,(answer3_4=answer4_4)).  
END IF.
```

```
DO IF missing(answer1_5) AND sjt_dupsum5 GT 0.  
  compute sjt_dupmatch5=9.  
ELSE.  
  compute sjt_dupmatch5=sum((answer3_5=answer2_5) , (answer1_5=answer3_5) ,  
(answer1_5=answer4_5) ,  
(answer2_5=answer3_5) ,(answer2_5=answer4_5) ,(answer3_5=answer4_5)).  
END IF.
```

```
DO IF missing(answer1_6) AND sjt_dupsum6 GT 0.  
  compute sjt_dupmatch6=9.  
ELSE.  
  compute sjt_dupmatch6=sum((answer3_6=answer2_6) , (answer1_6=answer3_6) ,  
(answer1_6=answer4_6) ,  
(answer2_6=answer3_6) ,(answer2_6=answer4_6) ,(answer3_6=answer4_6)).  
END IF.
```

```
DO IF missing(answer1_7) AND sjt_dupsum7 GT 0.  
  compute sjt_dupmatch7=9.  
ELSE.  
  compute sjt_dupmatch7=sum((answer3_7=answer2_7) , (answer1_7=answer3_7) ,  
(answer1_7=answer4_7) ,  
(answer2_7=answer3_7) ,(answer2_7=answer4_7) ,(answer3_7=answer4_7)).  
END IF.
```

```
DO IF ((missing(answer1_8)) AND (sjt_dupsum8 GT 0)).  
  compute sjt_dupmatch8=9.  
ELSE.  
  compute sjt_dupmatch8=sum((answer3_8=answer2_8) , (answer1_8=answer3_8) ,  
(answer1_8=answer4_8) ,  
(answer2_8=answer3_8) ,(answer2_8=answer4_8) ,(answer3_8=answer4_8)).
```

END IF.
execute.

DO IF ((missing(answer1_9)) AND (sjt_dupsum9 GT 0)).

compute sjt_dupmatch9=9.

ELSE.

compute sjt_dupmatch9=sum((answer3_9=answer2_9) , (answer1_9=answer3_9) ,
(answer1_9=answer4_9) ,
(answer2_9=answer3_9) ,(answer2_9=answer4_9) ,(answer3_9=answer4_9)).

END IF.

execute.

/*value for s type when there are matches and it can't be calculated

/* compute s_missing=\$systemis.

compute s_missing=3.

execute.

DO IF sjt_dupsum3 GT 0.

compute sjt3d=0.

compute sjt3w=0.

compute sjt3p=0.

compute sjt3s=s_missing.

DO IF sjt_dupmatch3 = 0.

if (answer1_3 = 1) sjt3d=1.

/*compute sjt3w=3*(answer1_3 = 1) + 2*(answer2_3 = 2) + (answer3_3 = 3).

compute sjt3w=sum(3*(answer1_3 = 1) , 2*(answer2_3 = 2) , (answer3_3 = 3)).

/*compute sjt3p=3*(answer1_3 = 1) + 2*(answer2_3 = 1) + (answer3_3 = 1).

compute sjt3p=sum(3*(answer1_3 = 1) , 2*(answer2_3 = 1) , (answer3_3 = 1)).

compute sjt3s= mean(sqrt((answer1_3 - 1)**2), sqrt((answer2_3 - 2)**2), sqrt((answer3_3 - 3)**2),sqrt((answer4_3 - 4)**2)).

END IF.

END IF.

execute.

DO IF sjt_dupsum4 GT 0.

compute sjt4d=0.

compute sjt4w=0.

compute sjt4p=0.

compute sjt4s=s_missing.

DO IF sjt_dupmatch4 = 0.

if (answer1_4 = 1) sjt4d=1.

compute sjt4w= sum(3*(answer1_4 = 1) , 2*(answer2_4 = 3) , (answer3_4 = 4)).

compute sjt4p= sum(3*(answer1_4 = 1) , 2*(answer2_4 = 1) , (answer3_4 = 1)).

compute sjt4s= mean(sqrt((answer1_4 - 1)**2), sqrt((answer2_4 - 3)**2), sqrt((answer3_4 - 4)**2),sqrt((answer4_4 - 2)**2)).

END IF.

END IF.

DO IF sjt_dupsum5 GT 0.

compute sjt5d=0.

compute sjt5w=0.

compute sjt5p=0.

compute sjt5s=s_missing.

DO IF sjt_dupmatch5 = 0.

if (answer1_5 = 2) sjt5d=1.

compute sjt5w=sum(3*(answer1_5 = 2) , 2*(answer2_5 = 1) , (answer3_5 = 4)).

compute sjt5p=sum(3*(answer2_5 = 1) , 2*(answer1_5 = 1) , (answer4_5 = 1)).

compute sjt5s= mean(sqrt((answer1_5 - 2)**2), sqrt((answer2_5 - 1)**2), sqrt((answer3_5 - 4)**2),sqrt((answer4_5 - 3)**2)).

END IF.

END IF.

DO IF sjt_dupsum6 GT 0.

compute sjt6d=0.

compute sjt6w=0.

compute sjt6p=0.

compute sjt6s=s_missing.

DO IF sjt_dupmatch6 = 0.

if (answer1_6 = 4) sjt6d=1.

compute sjt6w=sum(3*(answer1_6 = 4) , 2*(answer2_6 = 3) , (answer3_6 = 2)).

compute sjt6p=sum(3*(answer4_6 = 1) , 2*(answer3_6 = 1) , (answer2_6 = 1)).

compute sjt6s= mean(sqrt((answer1_6 - 4)**2), sqrt((answer2_6 - 3)**2), sqrt((answer3_6 - 2)**2),sqrt((answer4_6 - 1)**2)).

END IF.

END IF.

DO IF sjt_dupsum7 GT 0.

compute sjt7d=0.

compute sjt7w=0.

compute sjt7p=0.

compute sjt7s=s_missing.

DO IF sjt_dupmatch7 = 0.

if (answer1_7 = 2) sjt7d=1.

compute sjt7w=sum(3*(answer1_7 = 2) , 2*(answer2_7 = 1) , (answer3_7 = 4)).

compute sjt7p=sum(3*(answer2_7 = 1) , 2*(answer1_7 = 1) , (answer4_7 = 1)).

compute sjt7s= sqrt((answer1_7 - 2)**2 + 2*(answer2_7 - 1)**2 + (answer3_7 - 4)**2 + (answer4_7 - 3)**2).

END IF.

END IF.

DO IF sjt_dupsum8 GT 0.

compute sjt8d=0.

```

compute sjt8w=0.
compute sjt8p=0.
compute sjt8s=s_missing.
DO IF sjt_dupmatch8 = 0.
if (answer1_8 = 1) sjt8d=1.
compute sjt8w=sum( 3*(answer1_8 = 1) , 2*(answer2_8 = 2) , (answer3_8 = 4) ).
compute sjt8p=sum( 3*(answer1_8 = 1) , 2*(answer2_8 = 1) , (answer4_8 = 1) ).
compute sjt8s= mean(sqrt((answer1_8 - 1)**2), sqrt((answer2_8 - 2)**2), sqrt((answer3_8 -
4)**2),sqrt((answer4_8 - 3)**2 )).
END IF.
END IF.

```

```

DO IF sjt_dupsum2 GT 0.
compute sjt2d=0.
compute sjt2ps=3.
DO IF sjt_dupmatch2 = 0.
if (answer1_2 = 1) sjt2d=1.
compute sjt2ps=abs(answer1_2 - 1).
END IF.
END IF.

```

```

DO IF sjt_dupsum9 GT 0.
compute sjt9d=0.
compute sjt9ps=3.
DO IF sjt_dupmatch9 = 0.
if (answer4_9 = 4) sjt9d=1.
compute sjt9ps=abs(answer1_9 - 4).
END IF.
END IF.
execute.

```

* create total scores for low and high load conditions
* compute recall performance scores

```

DO IF sjt_dupsum3 GT 0.

```

```

compute sjt_low_n=0.
compute sjt_high_n=0.

```

```

DO IF (tasknumber_3 LT 10).
compute sjt_low_n=sjt_low_n+1.
compute sjt_low_d_3=sjt3d.
compute sjt_low_p_3=sjt3p.
compute sjt_low_w_3=sjt3w.
compute sjt_low_s_3=sjt3s.
compute sjt_low_r_3=(tasknumber_3=numbergiven_3).

```

```
END IF.  
DO IF (tasknumber_3 GT 10000).  
  compute sjt_high_n=sjt_high_n+1.  
  compute sjt_high_d_3=sjt3d.  
  compute sjt_high_p_3=sjt3p.  
  compute sjt_high_w_3=sjt3w.  
  compute sjt_high_s_3=sjt3s.  
  compute sjt_high_r_3=(tasknumber_3=numbergiven_3).  
END IF.
```

```
DO IF (tasknumber_4 LT 10).  
  compute sjt_low_n=sjt_low_n+1.  
  compute sjt_low_d_4=sjt4d.  
  compute sjt_low_p_4=sjt4p.  
  compute sjt_low_w_4=sjt4w.  
  compute sjt_low_s_4=sjt4s.  
  compute sjt_low_r_4=(tasknumber_4=numbergiven_4).  
END IF.
```

```
DO IF (tasknumber_4 GT 10000).  
  compute sjt_high_n=sjt_high_n+1.  
  compute sjt_high_d_4=sjt4d.  
  compute sjt_high_p_4=sjt4p.  
  compute sjt_high_w_4=sjt4w.  
  compute sjt_high_s_4=sjt4s.  
  compute sjt_high_r_4=(tasknumber_4=numbergiven_4).  
END IF.
```

```
DO IF (tasknumber_5 LT 10).  
  compute sjt_low_n=sjt_low_n+1.  
  compute sjt_low_d_5=sjt5d.  
  compute sjt_low_p_5=sjt5p.  
  compute sjt_low_w_5=sjt5w.  
  compute sjt_low_s_5=sjt5s.  
  compute sjt_low_r_5=(tasknumber_5=numbergiven_5).  
END IF.
```

```
DO IF (tasknumber_5 GT 10000).  
  compute sjt_high_n=sjt_high_n+1.  
  compute sjt_high_d_5=sjt5d.  
  compute sjt_high_p_5=sjt5p.  
  compute sjt_high_w_5=sjt5w.  
  compute sjt_high_s_5=sjt5s.  
  compute sjt_high_r_5=(tasknumber_5=numbergiven_5).  
END IF.
```

```
DO IF (tasknumber_6 LT 10).  
  compute sjt_low_n=sjt_low_n+1.
```

```
compute sjt_low_d_6=sjt6d.  
compute sjt_low_p_6=sjt6p.  
compute sjt_low_w_6=sjt6w.  
compute sjt_low_s_6=sjt6s.  
compute sjt_low_r_6=(tasknumber_6=numbergiven_6).  
END IF.
```

```
DO IF (tasknumber_6 GT 10000).  
compute sjt_high_n=sjt_high_n+1.  
compute sjt_high_d_6=sjt6d.  
compute sjt_high_p_6=sjt6p.  
compute sjt_high_w_6=sjt6w.  
compute sjt_high_s_6=sjt6s.  
compute sjt_high_r_6=(tasknumber_6=numbergiven_6).  
END IF.
```

```
DO IF (tasknumber_7 LT 10).  
compute sjt_low_n=sjt_low_n+1.  
compute sjt_low_d_7=sjt7d.  
compute sjt_low_p_7=sjt7p.  
compute sjt_low_w_7=sjt7w.  
compute sjt_low_s_7=sjt7s.  
compute sjt_low_r_7=(tasknumber_7=numbergiven_7).  
END IF.
```

```
DO IF (tasknumber_7 GT 10000).  
compute sjt_high_n=sjt_high_n+1.  
compute sjt_high_d_7=sjt7d.  
compute sjt_high_p_7=sjt7p.  
compute sjt_high_w_7=sjt7w.  
compute sjt_high_s_7=sjt7s.  
compute sjt_high_r_7=(tasknumber_7=numbergiven_7).  
END IF.
```

```
DO IF (tasknumber_8 LT 10).  
compute sjt_low_n=sjt_low_n+1.  
compute sjt_low_d_8=sjt8d.  
compute sjt_low_p_8=sjt8p.  
compute sjt_low_w_8=sjt8w.  
compute sjt_low_s_8=sjt8s.  
compute sjt_low_r_8=(tasknumber_8=numbergiven_8).  
END IF.
```

```
DO IF (tasknumber_8 GT 10000).  
compute sjt_high_n=sjt_high_n+1.  
compute sjt_high_d_8=sjt8d.  
compute sjt_high_p_8=sjt8p.  
compute sjt_high_w_8=sjt8w.  
compute sjt_high_s_8=sjt8s.
```

```
compute sjt_high_r_8=(tasknumber_8=numbergiven_8).  
END IF.
```

```
compute sjt_low_d_sum= sum(sjt_low_d_3, sjt_low_d_4, sjt_low_d_5, sjt_low_d_6,  
sjt_low_d_7, sjt_low_d_8).  
compute sjt_low_d_mean= sjt_low_d_sum/sjt_low_n.  
compute sjt_high_d_sum= sum(sjt_high_d_3, sjt_high_d_4, sjt_high_d_5, sjt_high_d_6,  
sjt_high_d_7, sjt_high_d_8).  
compute sjt_high_d_mean= sjt_high_d_sum/sjt_high_n.
```

```
compute sjt_low_p_sum= sum(sjt_low_p_3, sjt_low_p_4, sjt_low_p_5, sjt_low_p_6,  
sjt_low_p_7, sjt_low_p_8).  
compute sjt_low_p_mean= sjt_low_p_sum/sjt_low_n.  
compute sjt_high_p_sum= sum(sjt_high_p_3, sjt_high_p_4, sjt_high_p_5, sjt_high_p_6,  
sjt_high_p_7, sjt_high_p_8).  
compute sjt_high_p_mean= sjt_high_p_sum/sjt_high_n.
```

```
compute sjt_low_w_sum= sum(sjt_low_w_3, sjt_low_w_4, sjt_low_w_5, sjt_low_w_6,  
sjt_low_w_7, sjt_low_w_8).  
compute sjt_low_w_mean= sjt_low_w_sum/sjt_low_n.  
compute sjt_high_w_sum= sum(sjt_high_w_3, sjt_high_w_4, sjt_high_w_5, sjt_high_w_6,  
sjt_high_w_7, sjt_high_w_8).  
compute sjt_high_w_mean= sjt_high_w_sum/sjt_high_n.
```

```
compute sjt_low_s_sum= sum(sjt_low_s_3, sjt_low_s_4, sjt_low_s_5, sjt_low_s_6, sjt_low_s_7,  
sjt_low_s_8).  
compute sjt_low_s_mean= sjt_low_s_sum/sjt_low_n.  
compute sjt_high_s_sum= sum(sjt_high_s_3, sjt_high_s_4, sjt_high_s_5, sjt_high_s_6,  
sjt_high_s_7, sjt_high_s_8).  
compute sjt_high_s_mean= sjt_high_s_sum/sjt_high_n.
```

```
END IF.  
execute.
```

* create a summary of the 4 indices

```
DESCRIPTIVES VARIABLES=sjt_low_d_mean sjt_high_d_mean sjt_low_p_mean  
sjt_high_p_mean sjt_low_w_mean  
sjt_high_w_mean sjt_low_s_mean sjt_high_s_mean  
/SAVE  
/STATISTICS=MEAN STDDEV MIN MAX.  
compute sjt_low_mean = mean( Zsjt_low_d_mean, Zsjt_low_p_mean, Zsjt_low_w_mean, -  
1*Zsjt_low_s_mean).  
compute sjt_high_mean = mean( Zsjt_high_d_mean, Zsjt_high_p_mean, Zsjt_high_w_mean, -  
1*Zsjt_high_s_mean).  
compute sjt_mean=mean( sjt_low_mean, sjt_high_mean).
```

execute.

* ----- recall performance -----

compute sjt_low_r_sum= sum(sjt_low_r_3, sjt_low_r_4, sjt_low_r_5, sjt_low_r_6, sjt_low_r_7,
sjt_low_r_8).

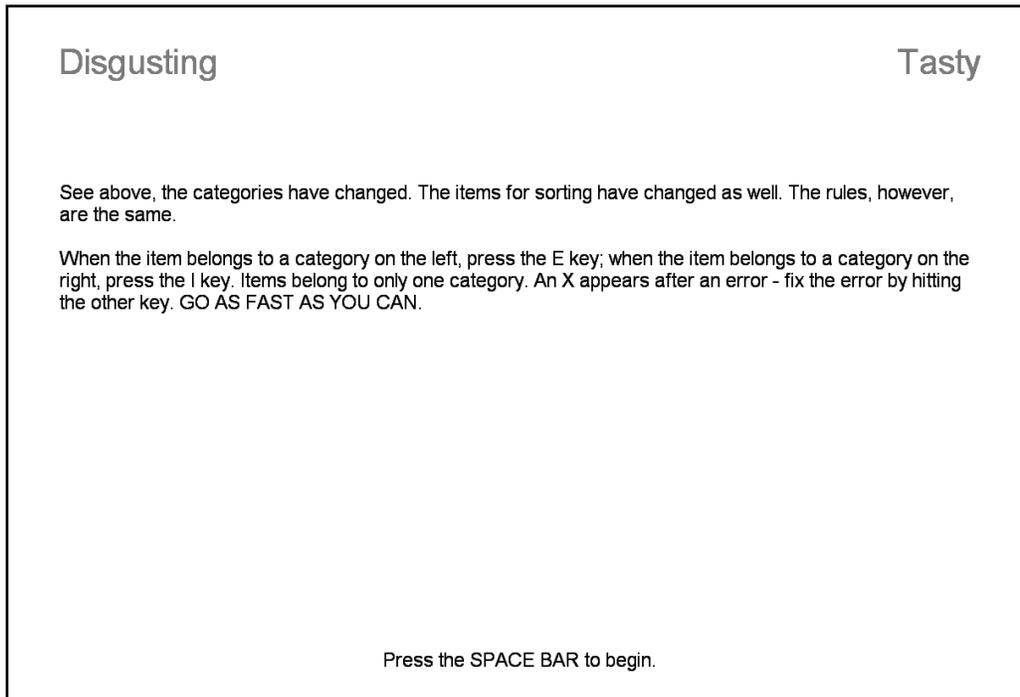
compute sjt_low_r_mean= sjt_low_r_sum/sjt_low_n.

compute sjt_high_r_sum= sum(sjt_high_r_3, sjt_high_r_4, sjt_high_r_5, sjt_high_r_6,
sjt_high_r_7, sjt_high_r_8).

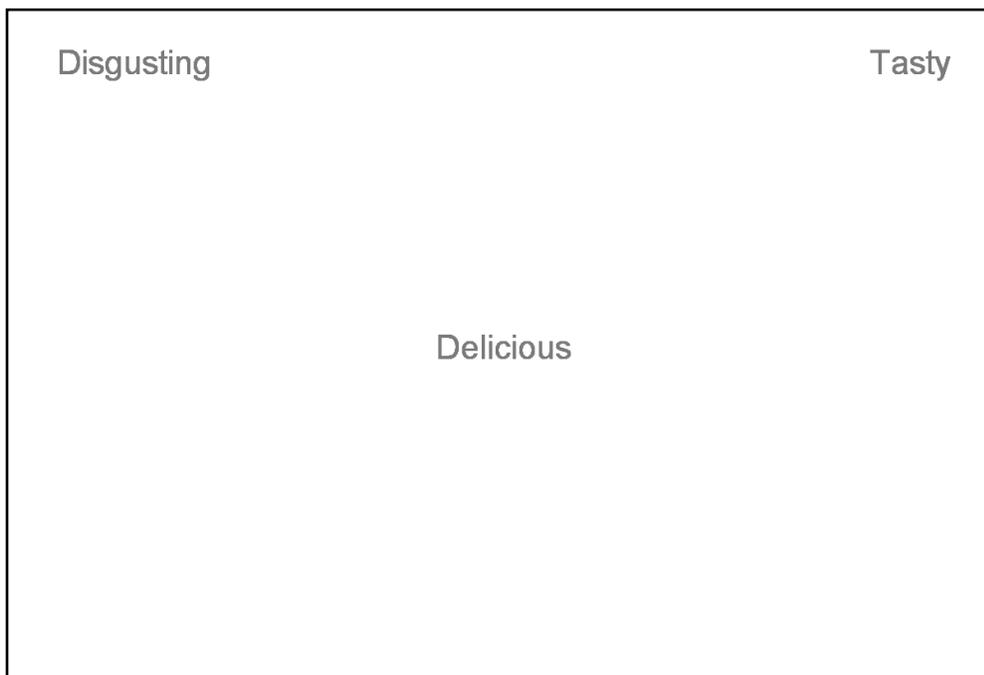
compute sjt_high_r_mean= sjt_high_r_sum/sjt_high_n.

execute.

Appendix H: Sample IAT screens



Attribute training instructions. Categories (Disgusting, Tasty) appeared in green and image was inverted (white or green on black background).



Attribute training trial. All text appeared in green and image was inverted (green on black background).

American Food

Foreign Food

Put your middle or index fingers on the E and I keys of your keyboard. Words representing the categories at the top will appear one-by-one in the middle of the screen. When the item belongs to a category on the left, press the E key; when the item belongs to a category on the right, press the I key. Items belong to only one category. If you make an error, an X will appear - fix the error by hitting the other key.

This is a timed sorting task. GO AS FAST AS YOU CAN while making as few mistakes as possible. Going too slow or making too many errors will result in an uninterpretable score. This task will take about 5 minutes to complete.

Press the SPACE BAR to begin.

Target training instructions. All text appeared in white and image was inverted (white on black background).

American Food

Foreign Food

Chicken Wings

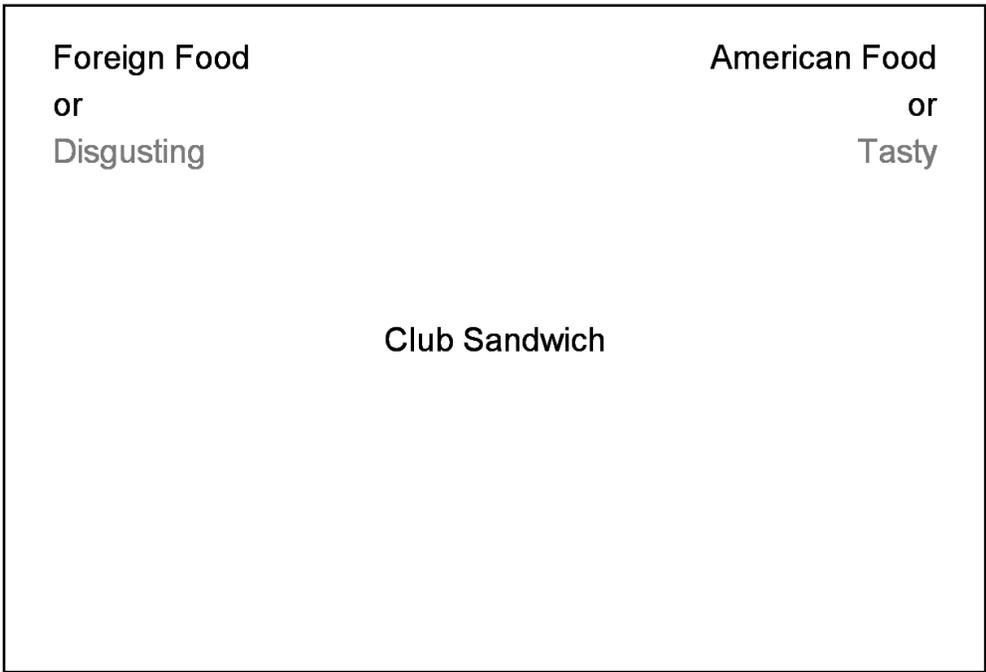
Target training trial. All text appeared in white and image was inverted (white on black background).

American Food	Foreign Food
or	or
Disgusting	Tasty
<p>See above, the four categories you saw separately now appear together. Remember, each item belongs to only one group. For example, if the categories American Food and Tasty appeared on the separate sides above - words meaning American Food would go in the American Food category, not the Tasty category.</p> <p>The green and white labels and items may help to identify the appropriate category. Use the E and I keys to categorize items into four groups left and right, and correct errors by hitting the other key.</p>	
<p>Press the SPACE BAR to begin.</p>	

Test trial instructions. An incompatible test trial is shown. Target categories (American Food, Foreign Food) appeared in white. Attribute categories (Disgusting, Tasty) appeared in green. The image was inverted (white or green on black background).

American Food	Foreign Food
or	or
Disgusting	Tasty
<p>Monkey Brains</p> <p>X</p>	

Test trial. An incompatible test trial is shown, with an error response. Target categories (American Food, Foreign Food) appeared in white. Attribute categories (Disgusting, Tasty) appeared in green. The error feedback to the participant is a red X. The image was inverted (white or green on black background).



Test trial. A compatible test trial is shown. Target categories (American Food, Foreign Food) appeared in white. Attribute categories (Disgusting, Tasty) appeared in green. The image was inverted (white or green on black background).