

## Effects of the Culture Assimilator on Cross-Cultural Understanding and Attitudes of College Students

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This study investigated the effects of the culture assimilator as a teaching technique in cross-cultural education. It specifically focused on exploring the effectiveness of the Japanese Culture Assimilator on the cross-cultural understanding and attitudes of American college students. The sample for this study was 41 college students, who were randomly assigned to treatment and control groups. The treatment group was asked to read a self-learning package of the Japanese Culture Assimilator outside of class. The control group received no treatment. The average length of the treatment was 60.9 minutes. Assessment was conducted using five dependent variables: performance on 15 critical incidents, analysis of one critical incident, the Inventory of Cross-Cultural Sensitivity, the Attitude Toward Other Culture Scale, and the Social Distance Scale. The *t*-test ( $p < .05$ ) was used for comparisons between the treatment and the control groups. The results of the study show no positive effects on subjects' cross-cultural sensitivity or on their attitudes towards Japanese culture. However, reading the culture assimilator did result in an increase in their cross-cultural understanding, an added sophistication in cross-cultural thinking related to the two specific cultures involved, and a greater acceptance of the Japanese people.

### 大学生の異文化理解と態度におけるCulture assimilatorの及ぼす効果

本稿は、異文化教育におけるculture assimilatorの教授方法としての効果調査したものである。特に、Japanese culture assimilatorのアメリカ学生の異文化理解と態度への効果に焦点があててある。41人の大学生は、トリートメントのグループとコントロールのグループに分けられ、トリートメントグループのみ、Japanese culture assimilatorに取り組み、そのつかった平均時間は60.9分であった。5つのテスト(1)15のcritical incidents、(2)1つのcritical incidentの分析、(3)the inventory of Cross-Cultural Sensitivity、(4)the Attitude Toward Other Culture Scale、(5)the Social Distance Scaleが、実験後行使され、*t*テスト( $p > .05$ )がその分析のため使われた。その結果にもとずいてJapanese culture assimilatorは、一般的cross-cultural sensitivityと日本文化に対しての態度には、効果は引き出せなかったが、一方、異文化理解の(文化の異なるパターンの理解)、2つの文化に関するcritical thinkingの洗練度、及び日本人の受容に効果があるとされた。

## 1. Introduction

The world is daily becoming more interdependent and interconnected. Interaction between peoples of different cultures is increasing, as international cooperation, economic and technical assistance, and political and economic integration grow in magnitude. Hall (1976) states that there are two related crises in the world of contemporary man. The first is the population/environmental crisis. The second, more subtle, is man himself and his relationship to his culture. According to Hall, the future depends on man exceeding the limits of individual cultures, since technical solutions to environmental problems will never be applied rationally until man has exceeded the limitations imposed by his culture.

Zais (1976) called the condition in which human beings have not exceeded such limitations "encapsulation." Encapsulation prompts us to justify our beliefs and behavior with invented reasons, without trying to find the real reasons for them. In addition, it also causes individuals to create, and to re-create the institutions that shape them—society, culture, and curriculum—which are instruments of encapsulation. Zais suggests that we should have a curriculum that alleviates the distinctions of encapsulation and develops knowledge of what is real.

It is well established that each individual has his or her own subjective reality, which can result in misunderstanding in relationships with others, even in ordinary intracultural circumstances (Cantril, 1957). Therefore, it would seem reasonable to expect that the potential for problems in intercultural interaction is even greater, since there are often major differences in values, attitudes, beliefs, and expectations. Triandis (1972) has termed the manner in which a given cultural group characteristically perceives its social environment as the "subjective culture" of that group. The nature of this subjective culture makes it hard for people in a cross-cultural context to see what is real.

While schools are being urged to educate young people in cross-cultural understanding, the real question is how to accomplish this. Although there are various models of cross-cultural training available in the literature, not all of them are equally applicable or desirable in school settings. One particular method, the culture assimilator (Albert, 1983), seems to be very promising. The culture assimilator was originally developed by sociologists in the late 1960s as a technique for facilitating adjustment to another culture. A number of culture assimilators have been used extensively to train such groups as American army officers for work with a specific cultural group, and Anglo-

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American teachers for teaching different ethnic groups. Many studies, although differing greatly in certain respects (such as the population of trainees, the target culture, and the length and context of investigation), have shown that a culture assimilator is an effective method for providing cultural information, facilitating interpersonal relations between trainees and members of the target culture, and improving cross-cultural adjustment. Albert (1983) concluded from available evidence that the culture assimilator may be ideally suited for educational purposes.

However, despite its advantages, the culture assimilator has never been tested in the way proposed for this study. The culture assimilator has been researched with only four groups: subjects who are already in the target culture (Worchel & Mitchell, 1970); subjects who will possibly be in the target culture in the near future, because of military service or participation in a cultural program (Mitchell & Foa, 1969; O'Brien et al., 1971); subjects who already have some exposure to the target culture, such as white subjects using the Black Culture Assimilator (Weldon et al., 1975; Randolph et al., 1977); and subjects who are likely to encounter the target people, such as Anglo-American teachers or future teachers using the Hispanic Culture Assimilator (Crespo, 1982).

The majority of students at school do not have much opportunity to gain understanding of different cultures from other countries. They do not expect to encounter such cultures on a very personal basis, and consequently possess low motivation for learning about other cultures. Yet, these students are undoubtedly the ones who need it most. Therefore, in this study, the use of the culture assimilator with subjects representing average students from a majority culture was undertaken to extend the evaluation of culture assimilators. The goal was to investigate the effects of the culture assimilator as a teaching technique in cross-cultural education. A self-learning package of the culture assimilator, designed to allow American college students to understand the Japanese culture (the Japanese Culture Assimilator), was constructed for this study by the investigator. This study specifically focused on exploring the effectiveness of the Japanese Culture Assimilator on the cross-cultural understanding and attitudes of American college students.

Specifically, the study attempted to determine whether, as a function of using the Japanese Culture Assimilator self-learning package outside of class, there was a significant difference in the scores of the treatment and control groups on the following measures or special scales:

1. Performance scores on working with 15 critical incidents (Research Question 1);
2. Ability to analyze a single critical incident (Research Question 2);
3. Inventory of Cross-Cultural Sensitivity (Research Question 3);
4. Attitude Toward Other Culture Scale (Research Question 4);
5. Social Distance Scale (Research Question 5).

These five dependent variables were used to measure the effectiveness of the culture assimilator in five areas: (a) cross-cultural understanding; (b) sophistication in cross-cultural thinking; (c) cross-cultural sensitivity; (d) attitudes toward Japanese culture; and (e) acceptance of the Japanese.

## **2. Theoretical Background of Culture Assimilators**

### *2.1 Attribution Theory*

Attributions are inferences about the cause of an event or a person's motives. Attribution theory began with Heider's (1944, 1958) seminal analyses of how people perceive and explain the actions of others. According to Heider (1958), people operate very much like quasi-scientists in their attributional activities. They observe an event, and then often in a logical, analytical way, attempt to connect it to possible causes and various effects. In general, attributions are considered to be dependent on the norms, affect, roles, and the consequences of actions seen as operating in a social situation (Triandis, 1975). Although these are learned, attributions often become habits of thought that are difficult to distinguish from perceptions of observed behavior (Triandis, 1975). Therefore, attributions are crucial determinants of how one will evaluate another's behavior.

Discrepancies in attributions may result in misunderstanding, low interpersonal attractions, and even conflicts. Two individuals from different cultures are more likely to face such discrepancies, because of their differences in norms, attitudes, and values. When members of two different cultures interact, the attributions that each makes about the causes of the other's behavior are even more critical determinants of how that behavior will be evaluated. Triandis (1975) introduced the concept of isomorphic attributions to discuss the situation in which a person attributes the behavior of another to the same causes to which the other attributes his or her own behavior. When isomorphic attributions occur, each person is particularly likely to appreciate why the other has acted the way he or she has.

### *2.2 Basic features of the culture assimilator*

The culture assimilator is a programmed learning instrument that can be

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used to teach people from two different cultural groups to make isomorphic attributions regarding the behavior of people from a specific culture (Triandis, 1977). Culture assimilators make use of episodes involving cross-cultural encounters which might be misinterpreted by a person from one culture. Each short episode describes a “critical incident” of cross-cultural interaction. The critical incident was originally developed by Flannagan (1954), who utilized the technique for investigating effective and ineffective job behaviors. The basic premise of the critical incident is identified as follows: (a) a situation in which two persons from different cultures interact; (b) a situation in which a person from one culture finds himself or herself in conflict, in the midst of a misunderstanding, or simply puzzlement; and (c) a situation which can be interpreted in a fairly unequivocal manner, given sufficient knowledge about the culture (Fiedler et al., 1971, p. 97).

No single culture assimilator exists; different assimilators are needed for each pair of cultures. Given culture A, B, and C, a person could use different assimilators to teach people from A about B, B about A, A about C, and C about A. In typical assimilators, each incident is followed by three or four attributions, with one or two tending to be attributions made by people in the target culture, and two or three usually being interpretations that members of the learners’ culture typically select. The learner is asked to select the attribution chosen by people from the target culture. After the learner chooses an attribution, culturally relevant feedback is given to him or her. If an incorrect choice is made, the learner is asked to make another choice. The learner is instructed to keep trying until he/she selects the attribution chosen by members of the target culture (Albert, 1983).

A number of culture assimilators have been constructed for use. These culture assimilators have been used extensively to train such groups as American army officers for assignments in a specific culture (e.g., Iran, Honduras, Thailand, Greece), and white, middle-class Americans for work with different minority groups (e.g., African-Americans, Mexican-Americans). While the culture assimilators mentioned above are designed to prepare individuals for interactions with particular culture groups, the culture-general assimilator, which can be used widely in preparing people to interact in a variety of settings, has been newly developed (Brislin et al., 1986). Existing culture assimilators vary in their emphasis on different aspects of cultures, since “there is no one definite format, nor one method of constructing assimilators” (Albert, 1983, p. 189).

### 3. Method

#### 3.1 Subjects

The experiment was conducted in the summer of 1991 at Southern Illinois University in Carbondale (SIUC), Illinois. Southern Illinois University is a large, Midwestern university with an enrollment of 24,000. The subjects were 41 American students who were enrolled in undergraduate classes there. Participants in the study were volunteers. In the first stage of the experiment, the following background information was obtained from a biographical questionnaire elicited for descriptive purposes:

1. Twenty-one males and 20 females participated in the study;
2. The average age of the subjects was 23.1;
3. None of the subjects had previously lived in Japan;
4. Two subjects had close Japanese friends;
5. Two subjects were freshman, 9 were sophomores, 6 were juniors, and 24 were seniors;
6. All the subjects were undergraduates. Their majors varied widely among 24 areas. Two subjects declared no major.
7. With regard to the subjects' attitudes toward Japan and to Japanese people in general, 1 subject chose "very negative," 3, "somewhat negative," 24, "neutral," 8 "somewhat positive," and 5 "very positive."

#### 3.2 Research design

The design used in this study was a post-test only control group design. The steps involved in the post-test only control group design are described as follows: (a) randomly assign subjects to the treatment and control groups; (b) administer the treatment to the experimental groups, but not to the control group; and (c) administer the post-test to both groups (Borg & Gall, 1983). This design is recommended when there is a possibility that the pre-test will have an effect on the experimental treatment. As in some past experiments involving culture assimilators (e.g., Broaddus, 1986; Crespo, 1982), the investigator adopted this design because of the possibility that the pre-test would sensitize the subjects.

#### 3.3 Procedures

All 41 subjects were informed as follows: (a) in the next two weeks they would go to an assigned room and obtain prepared materials; each would receive his/her own envelope; (b) they would do their own work, according to the written instructions in the envelope. The students were asked to sign up,

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using an assigned number to obtain their envelopes. The treatment group read the Japanese Culture Assimilator with the worksheet, and finally answered Questionnaires, which consisted of 5 dependent variables. The control group only answered Questionnaires. All of the subjects received written instructions in their envelopes. This appeared to preclude confusion in the students' work.

### *3.4 Materials*

The original material in this investigation was a self-learning package of the Japanese Culture Assimilator, which consisted of 35 episodes. These episodes contained some significant features of Japanese culture. All of them were previously written by the investigator, a Japanese graduate student who had been in America for 8 years. From the 35 incidents, 30 were chosen to constitute an appropriate sample of reading materials. These were presented in narrative form. This particular culture assimilator has some specific features because it has been designed for college students. In many of the critical incidents, either American college students or young Americans are involved. Also, professors in university settings are sometimes involved. In some incidents, there are no Americans, but rather Japanese students who experience cultural gaps between American and Japanese cultures. These varieties of styles were devised to involve readers more actively in their reading. All of the episodes with the four attributions and feedback statements were adopted only after a number of validation steps were undertaken with the aid of Japanese and American students.

### *3.5 Instrumentation*

The test of the performance on 15 critical incidents, which asks the subjects to respond to 10-25 previously unread critical incidents, has been used in a number of past experiments with culture assimilators in order to measure cross-cultural understanding. The term, "cross-cultural understanding" refers to the understanding of the cultural patterns of members of the target culture, although this term has been interpreted in many ways in cross-cultural education. The test format is similar to the one used in the assimilator, except that no feedback is provided. The subjects are asked to choose one attribution out of the four or five given. In the investigator's experiment, the 15 critical incidents were developed in the same way, keeping in mind issues related to validity were kept in mind. Each correct attribution was given one point. The score range for an individual was zero to 15, indicating simply the number of best choices selected.

The test of analysis of one critical incident was used by Broaddus (1986) in order to measure sophistication in cross-cultural thinking. In the investigator's

experiment, one incident written by the investigator was used. The subjects were asked to analyze a prepared critical incident by writing a plausible explanation for the situation in one or more paragraphs. The degree of sophistication measured in the test is defined as the overall sum of the point value given by two raters. These two raters, who were advanced graduate level students, had practice doing similar ratings prior to this evaluation. The rating criteria were as follows: (a) the subject's attempt to explain the situation from a cross-cultural viewpoint (1 = no understanding, 2 = poor, 3 = fair, and 4 = good); (b) his/her understanding of Japanese culture (1 = no understanding, 2 = poor, 3 = fair, 4 = good); and (c) his/her application of his/her understanding of Japanese and American cultures to a specific cross-cultural incident (1 = no indication, 2 = poor, 3 = fair, and 4 = good). The total possible score ranged from 3 to 10, with the higher score indicating more sophistication in the desired direction.

The Inventory of Cross-Cultural Sensitivity (ICCS) was developed by Cushner (1987) as a means of assessing relative levels of cross-cultural sensitivity. It was employed in both Cushner's (1987) and Broaddus' (1986) studies of general-culture assimilators. The term "cross-cultural sensitivity" refers to sensitivity to intercultural differences in general. Higher "cross-cultural sensitivity" is considered to mean a higher "appreciation of a number of aspects related to cultural differences" (Broaddus, 1986, p. 36). When this study was undertaken, the ICCS was the only currently available instrument designed to assess sensitivity to intercultural differences. It is a 32-item instrument comprised of five subscales: cultural interaction (C scale); behavioral response (B scale); intellectual interaction (I scale); attitude toward others (A scale); and empathy (E scale). The possible range of the subscales' scores are 10 to 70 (C scale); 6 to 42 (B scale); 6 to 42 (I scale); 5 to 35 (A scale); and 5 to 35 (E scale).

The Attitude Toward Other Culture Scale was developed by Remmers (1960). Seventeen items relate to the subjects' perceptions of the other culture, for example, honesty, consideration of others, and gregariousness. This instrument was used to measure the attitudes of the subjects toward Japanese culture. The median scale value of the statements endorsed is the attitude score. When an odd number of items is endorsed, the scale value of the middle item of those endorsed is the score. When an even number of items is endorsed, the score is halfway between the scale values of the two middle items. Scores above 6.0 indicate a favorable attitude, and scores below 6.0, an unfavorable attitude.



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The Social Distance Scale was originally developed by Borgardus to measure social distance, or “the degree of intimacy an individual would allow members of outgroups” (Shaw & Wright, 1967, p. 407). In order to use the social distance scale in classroom settings, the investigator used one of the modifications made by Cooke (1969); two categories are rewarded. A behavioral differential format used by Crespo (1982) was also employed in this experiment. There are seven statements requiring a response from the subjects. The students are asked to put an “x” in the space that best corresponds to their opinion. Scores for each student are calculated by adding the value (from 1 to 7) for all seven scales in the instrument. Thus, the minimum social distance score would be 7, indicating maximum acceptance, and the maximum social distance score would be 49, indicating exclusion from all seven categories of social contact. The lower the score is, the greater the acceptance of the Japanese people by the subject.

### 3.6 Analysis of Data

The  $t$ -test ( $p < .05$ ) was used to compare the treatment and the control group. The SAS statistical package was utilized to run the statistical tests in this study. Two-tailed  $t$ -tests were conducted for comparison of the treatment and control groups for each dependent variable analysis.

## 4. Results

### 4.1 Research Question 1

*As a function of treatment, is there a significant difference in the scores of the treatment and control groups for their performances on 15 critical incidents?*

Table 1 presents data from the analysis of 15 selected critical incidents. The treatment group mean of 12.45 was significantly higher than the control group mean of 7.38 ( $t = 8.27, p < .0001$ ). Results showed that the treatment group made significantly more isomorphic attributions than the control group. This outcome was consistent with the results from a number of past studies (Crespo, 1982; Randolph et al., 1977; Weldon et al., 1975). The experiment herein is characteristic of the much shorter period required for this culture assimilator training and it is much less demanding work than in previous experiments as the students only read the culture assimilator outside of class. The brief period of training in this study was designed to emphasize two advantages of culture assimilator training: a relatively short training period and ease of administration. In this experiment, the subjects in the treatment group simply went to the assigned room. The average reading time was an

hour, and the administration was very easy, without any reported problems. This experiment confirmed that even a short training period, such as 60. 9 minutes of culture assimilator reading, can be an effective method for enhancing cross-cultural understanding, or for enabling trainees to make more isomorphic attributions.

Table 1  
Summary of the *T*-test Analysis Performance on 15 Critical Incidents

Treatment	Control
X = 12.45	X = 7.38
SD = 1.79	SD = 2.10
<i>t</i> = 8.27, <i>p</i> < .0001, <i>df</i> = 39.	

#### 4.2 Research Question 2

*As a function of treatment, is there a significant difference in the scores of the treatment and control groups in their abilities to analyze a single critical incident?*

Table 2 presents data pertaining to Research Question 2. Raw scores represented the average sum of values assigned by two raters on the three criteria. A Pearson coefficient of .92 was obtained between the two raters. The treatment group mean of 6.37 was significantly higher than the control group mean of 3.78 (*t* = 5.49, *p* < .0001). The result demonstrated that reading the culture assimilator enabled the subjects to demonstrate sophistication of cross-cultural thinking related to two cultures. The correlation coefficient of the results of Research Question 1 and Question 2 (*r* = .71, *p* < .0001) indicates a moderately strong relationship between the scores of the subjects, related to their cross-cultural understanding and sophistication in their cross-cultural thinking.

Table 2  
Summary of the *T*-Test Analysis  
Sophistication Analysis of a Single Critical Incident

Treatment	Control
X = 6.37	X = 3.78
SD = 1.58	SD = 1.42
<i>t</i> = 5.49, <i>p</i> < .0001, <i>df</i> = 39.	

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We can compare this result with that of the culture-general assimilator, conducted by Broaddus (1986). In that experiment, while the treatment group had a slightly higher mean than the control group on a rated sophistication analysis of a presented incident, the difference did not achieve significance. Broaddus summarized the result as follows: (a) the result may have been affected by the brief training period; (b) the results may have been more a reflection of subjects' writing skill than of their understanding of a presented incident; and (c) there was a marked increase in the relative difficulty of task involved, compared to that of the attribution tests (p. 55). Although the two studies used slightly different criteria because of the different kinds of culture assimilators they used, the present study shows that even a brief period of culture assimilator training can be an effective method of leading the subjects toward more sophisticated cross-cultural thinking.

### 4.3 Research Question 3

*As a function of treatment, is there a significant difference in the scores of the treatment and control group in their performances on the Inventory of Cross-Cultural Sensitivity (ICCS)?*

Table 3 presents data for the analysis. There were no significant differences between the treatment and control groups on any of the five subscales. As indicated by the results of the ICCS, there appeared to be no significant

Table 3  
Summary of the *T*-Test Analysis  
Inventory of Cross-Cultural Sensitivity (ICCS)

	Treatment	Control		P
C	X = 36.20 SD = 9.08	X = 36.04 SD = 10.58	$t = .049$	.96
B	X = 31.00 SD = 3.58	X = 30.09 SD = 4.06	$t = .758$	.45
I	X = 29.55 SD = 7.20	X = 30.23 SD = 5.29	$t = -.349$	.72
A	X = 24.80 SD = 4.45	X = 23.04 SD = 5.88	$t = 1.07$	.29
E	X = 28.25 SD = 4.52	X = 28.19 SD = 3.21	$t = .048$	.96
n.s. for all subscales				

differences between the treatment and control groups in their cross-cultural sensitivity. Possible reasons for the results obtained in ICCS are summarized as follows: (a) no difference in fact exists between the two groups on any of the five subscales; (b) possibly this instrument is not sufficiently sensitive to pick up differences in the two groups; and (c) although the ICCS is the only currently available instrument designed to assess cross-cultural sensitivity, some statements in it are not suitable for this brief experiment. For example, it is unlikely that any person would change a response after an hour's reading of the culture assimilator on some of the statements, such as "I speak only one language," or "I have foreigners to my home on a regular basis."

The ICCS has been used in two previous experiments using culture-general assimilators (Broaddus, 1986; Cushner, 1987). In Cushner's experiments, there were no significant differences found on any of the five subscales. Broaddus, however, found that the fifth factor (empathy) resulted in a significant difference on the pre-test and post-test performances of the treatment group after six sessions of culture-general assimilator training. Therefore, the researcher concludes as follows: Most likely, the non-significant difference in this study showed that it did not have a strong enough impact to cause the subjects of the treatment group to obtain a significantly higher cross-cultural sensitivity, as measured by the ICCS, than the control group. However, additional studies may be needed in order for the researcher to decide the appropriateness of the use of this instrument for this particular study.

#### 4.4 Research Question 4

*As a function of treatment, is there a significant difference between the treatment and control groups in their performances on the Attitude Toward Other Culture Scale?*

Table 4 presents data for the analysis pertaining to Research Question 4. No significant difference was found between students in the treatment and

Table 4  
Summary of the *T*-Test Analysis  
Attitude Toward Other Culture Scale

Treatment	Control
X = 7.52	X = 7.14
SD = 0.77	SD = 0.80
<i>t</i> = 1.50, <i>p</i> = n.s., <i>df</i> = 39.	

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control groups with respect to their attitudes toward Japanese culture. This result showed that the training in the present study did not have a strong enough effect to cause the subjects in the treatment group to acquire a significantly more positive attitude toward Japanese culture than the control group.

In the study conducted by Crespo (1982), no significant difference on the attitude scale between the culture assimilator training group and the control group was reported. He believed the likely reason for the lack of significance was that attitudes towards Hispanics might have already been positive prior to the training. Similarly, in the present study, the mean score of the treatment group, 7.52, and the mean score of the control group, 7.14, were positive, indicating a possible ceiling effect problem. Although prior to the training, more than half of the subjects chose "neutral" as their attitude toward Japan and the Japanese people, their attitude toward Japanese culture might have been more positive than they themselves actually expressed. In addition, 13 of the subjects declared that they already possessed a "somewhat positive" or a "very positive" attitude.

The non-significant result for Research Question 4 was consistent with the results of past experiments. Findings were not very conclusive with respect to attitudinal changes, even when role-playing was combined with the culture assimilator. Besides, it should be questioned whether or not attitude change is to be expected as a result of this cross-cultural training. The culture assimilator was designed mainly to "increase the reader's understanding of cultural patterns that are different from his own, but not to produce attitude changes" (Albert, 1983, p. 210).

### 4.5 Research Question 5

*As a function of treatment, is there a significant difference between the treatment and control groups in their performances on the Social Distance Scale?*

Table 5 presents data for the analysis regarding Research Question 5. Raw scores represented the values (ranging from 1 to 7) for all seven scales in the instruments. A subject is considered to have a greater acceptance of Japanese when his/her score is low. The treatment group's mean of 11.75 was significantly lower than the control group's mean of 17.47 ( $t = 2.44, p < .05$ ). The treatment group showed significantly more acceptance of the Japanese.

The results of Research Question 5 appear to contradict the results of Research Questions 3 and 4. Questions 3 and 4 are also intended to measure

Table 5  
Summary of the *T*-Test Analysis Social Distance Scale

Treatment	Control
X = 11.75	X = 17.47
SD = 6.12	SD = 8.60

$t = 2.44, p < .05, df = 39.$

the change in the affective factors of the subjects. The culture assimilator reading, while not eliciting significant differences in cross-cultural sensitivity and attitudes toward Japanese culture between the two groups, did effectively uncover one significant difference: the subjects of the treatment group showed greater acceptance of the Japanese people than those in the control group. However, when the three questions are examined carefully, the results do not seem as contradictory as they appeared at first glance. While question 5 investigated the subjects' acceptance of the Japanese people on a personal level, question 3 checked for general cross-cultural sensitivity, and question 4 researched general attitudes toward the Japanese culture. Therefore, the three questions addressed different issues and should be considered as distinct responses.

In comparing the results of questions 3 and 5, we observe that the process of attitude change from learning could be sequential in nature. First, the treatment results in increased understanding of another culture ("culture A") and in more sophisticated cross-cultural thinking on problematic encounters between culture A and the learners' own culture. Next, the learners increase their acceptance of the people from culture A. Last, they will gradually reach the stage of general application of culture learning to all people of different cultural backgrounds or any cross-cultural encounters with representatives of other cultures. This sequence, which is only an assumption, might explain why question 5 had a significant difference, while question 3 did not.

When the results of questions 4 and 5 are examined, we must consider two things: the mean scores and the different nature of the questions. First, the mean scores of both the treatment and control groups in question 4 were positive. The mean score of the treatment group was slightly higher than that of the control group, although the difference was not statistically significant. Second, the difference in the issues the two research questions addressed was definitely critical. While the purpose of question 4 was to measure attitudes toward the Japanese culture, question 5 investigated the subjects' acceptance

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of the Japanese people—in other words, the subjects' behavioral intentions. It seems likely that people who express the same degree of positive attitude toward culture A still have different degrees of behavioral intentions toward people from culture A. In fact, it is easier to express positive regard for others, but more difficult to behave in a positive manner toward them (Ajzen & Fishbein, 1974).

Allport's (1954) classic study showed that preschool youngsters frequently talked in a prejudiced manner, but behaved democratically, that is, they played freely with all youngsters in a multi-ethnic nursery school in Chicago's inner city. High school students, however, talked democratically, but behaved in a prejudiced manner, that is, they avoided social contact with adolescents of other ethnic groups. Part of this phenomenon may be used to explain the results of this study. The means of the treatment and control groups indicate positive attitudes toward the Japanese and Japanese culture without a significant difference between the treatment and control groups (question 4). However, there was a significant difference between the two groups in their acceptance of the Japanese people (question 5): The treatment group showed more acceptance of the Japanese people on a personal level. In other words, the subjects in the treatment group seemed to internalize positive attitudes more than those in the control group. Since the culture assimilator allowed the subjects to learn about the subjective culture of Japan, and to gain a wider acceptance of the Japanese, it may be used more in cross-cultural education in the future.

Finally, the researcher would like to discuss the factor of anxiety. Using the Black Culture Assimilator, Randolph et al. (1977) found that 35 subjects in the culture assimilator treatment group answered more of the assimilator items correctly than did the control group, but several negative results on attitudes were measured. The researchers noted that the culture assimilator training had elicited increased anxiety in the treatment group, which resulted in the lower attitude scores. They attributed this unexpected increase in anxiety to subject uneasiness, resulting from the realization that assumptions regarding African-Americans had been inaccurate, prejudiced, or wrong. This higher anxiety level was shown to decrease over time (Randolph et al., 1977). Landis et al. (1985) also stated that the anxiety generated by the presentation of new attributions will be extinguished through contacts positive, or at least neutral, in nature.

The researcher would like to point out that no signs of subjects' anxiety were detected, with the use of the Social Distance Scale, in her study.

Although the very brief training in the present study could have increased the subjects' anxiety, without enough time and opportunity given them to decrease their anxiety, this was not what happened. The results of Research Question 5 showed that there was no recognizable anxiety which could have caused greater social distance with the Japanese, that is, a lesser degree of intimacy. This was considered a meaningful finding.

## 5. Discussion

Based on the results of this study, it was concluded that reading the culture assimilator resulted in more cross-cultural understanding, more sophistication in cross-cultural thinking related to the two specific cultures involved, and greater acceptance of the Japanese. No positive effects on cross-cultural sensitivity or on attitudes toward Japanese culture were indicated.

A number of implications for the field of cross-cultural education are suggested as a result of this study. First, the highly significant growth in the ability of the treatment group to make more isomorphic attributions and more sophisticated analyses of a critical incident indicate that the culture assimilator proved to be an effective method of instructing students about another culture. The fact that a very brief treatment (average 60.9 minutes) resulted in such significant outcomes particularly recommends the use of the culture assimilator as a teaching technique in cross-cultural education.

A second implication, related to attitude change, is that training with the culture assimilator resulted in more acceptance of the Japanese people. In addition, although the treatment did not have a significant effect on the other attitude scales, it is worthwhile mentioning that it did not produce any undesirable effects, either. Based on past studies (Randolph et al., 1977; Landis et al., 1985), such a brief period of training as in this present study could have produced anxiety, and also could have reduced positive attitudes of the subjects. Even granting that subjects may have felt less threatened by a non-resident (Japanese) group than by the resident (African-American) group, the results of this study clearly encourage educators to use the culture assimilator as a teaching technique for cross-cultural education.

A third implication pertains to the smoothness of administration of assimilator training, which was predicted prior to the study. This smoothness of administration will prove promising for the future of the culture assimilator as a teaching technique in any educational setting. Although the present study used only a single culture assimilator, the same procedure could be applied to a group of culture assimilators, or to a combination of culture-general assimilators.



## Culture Assimilator and Cross-Cultural Understanding

Several recommendations for future studies are suggested: a similar study with a larger pool of subjects; a follow-up study to determine the relative duration of desired treatment effects of greater sophistication in cross-cultural thinking; and a follow-up study to investigate whether or not the gains from treatment make a difference in the subjects' motivation to interact with Japanese groups or any other cultural groups on campus. A future study also could compare the relative effectiveness of a single culture assimilator, or a combination of two or more culture assimilators with various other types of cross-cultural training.

Finally, the investigator emphasizes the promising use of culture assimilators in language classes. A general assumption exists that the study of a foreign language is of positive value to students in developing their knowledge of and sensitivity to countries and cultures other than their own. However, often the demands of teaching basic skills reduce the time allotted to culture learning in foreign language classes. The culture assimilator may help close this gap. It can be administered either individually or in groups, in a variety of settings, and at different times. It takes a relatively short time to administer outside of class. Finally, language teachers should find the culture assimilator very helpful as a practical learning aid in their classrooms.

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### References

- Adorno, T. W., Frenkel-Brunswick, E., Lavinson, Daniel J., and Sanford, R. (1950). *The Authoritarian personality*. New York: W. W. Norton.
- Ajzen, I., & Fishbein, M. (1974). Attitudinal variables as predictors of specific behaviors. *Journal of Personality and Social Psychology*, 27, 41-57.
- Albert, R. D. (1983). The intercultural culture assimilator or culture assimilator: A cognitive approach. In D. Landis & R. W. Brislin (Eds.), *Handbook of Intercultural Training*, Vol. 2, (pp. 186-217). New York: Pergamon.

- Allport, G. (1954). *The nature of prejudice*. Reading, MA: Addison-Wesley.
- Borg, W. R. & Gall, M. D. (1983). *Educational research*. New York: Longman.
- Brislin, R. W., Cushner, K., Cherrie, C., & Yong, M. (1986). *Intercultural interactions: A practical guide*. Beverly Hills, CA: SageBroaddus, D. L. (1986). *Use of culture-general assimilator in intercultural training*. Unpublished dissertation, Indiana State University, Terre Haute.
- Cantril, H. (1957). Perception and Interpersonal relations. *American Journal of Psychiatry*, 14, 119-126.
- Cooke, M. (1969). A study of the development of positive attitudes toward native speakers of Spanish. Unpublished doctoral dissertation, Ohio State University.
- Cooke, M. (1977). A pair of instruments for measuring student Attitudes toward bearers of the target culture. *Foreign Language Annals*, 10, 149-163.
- Crespo, O. I. (1982). Effects of cross-cultural training on attributions and attitudes of students in a teacher-training program. Unpublished doctoral dissertation, University of Illinois.
- Cushner, K. (1984). Inventory of cross-cultural sensitivity. Unpublished manuscript.
- Cushner, K. (1987). *The effect of a culture-general assimilator on the adjustment of adolescent exchange students living in New Zealand*. Unpublished dissertation, University of Hawaii, Honolulu.
- Fiedler, F. E., Mitchell, T., & Triandis, H. C. (1971). The culture assimilator: An approach to cross-cultural training. *Journal of Applied Psychology*, 55, 95-102.
- Flannagan, J. C. (1954). The critical incident technique. *Psychological Bulletin*, 51, 27-358.
- Hall, E. T. (1976). *Beyond culture*. Garden City, NY: Anchor Press.
- Heider, F. (1944). Social Perception and phenomenal causality. *Psychological Reviews*, 51, 358-374.
- Heider, F. (1958). *The psychology of interpersonal relations*. New York: Wiley.
- Landis, D., Brislin, R., & Hulgus, J. (1985). Attributional training versus contact in acculturative learning: A laboratory study. *Journal of Applied Social Psychology*, 15, 466-482.
- Mitchell, T. R. & Foa, U. G. (1969). Diffusion of the effect of cultural training in the structure of heterocultural test groups. *Australian Journal of Psychology*, 1, 31-43.
- O'Brien, G. E., Fiedler, F. E., & Hewitt, T. (1971). The effects of programmed culture training upon the performance of volunteer medical teams in Central America. *Human Relations*, 24, 304-315.
- Randolph, G., Landis, D., & Tzeng, O. C. S. (1977). The effects of time and practice upon culture assimilator training. *International Journal of Intercultural Relations*, 1, 103-119.

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- Remmers, H. H. (1960). *Manual for the Purdue master attitude scales*. Lafayette: Purdue Research Foundation.
- Shaw, E. E., & Wright, J. M. (1967). *Scales for the measurement of attitudes*. New York: McGraw-Hill.
- Triandis, H. C. (1972). *The analysis of subjective culture*. New York: Wiley.
- Triandis, H. C. (1975). Culture training, cognitive complexity, and interpersonal attitudes. In R. Brislin, S. Bochner, & Lonner (Eds.) *Cross-cultural perspectives on learning* (pp. 39-78). Beverly Hills, CA: Sage and Wiley Halsted.
- Triandis, H. C. (1977). Theoretical framework for evaluation of cross-cultural training effectiveness. *International Journal of Intercultural Relations*, 1, 19-45.
- Triandis, H. C. (1980). A Theoretical framework for the more efficient construction of culture assimilators. *International Journal of Intercultural Relations*, 4, 301-330.
- Weldon, D. E., Carlston, D. E., Rissman, A. K., Slobodin, L., & Triandis, H. C. (1975). A laboratory test of effects of culture assimilator training. *Journal of Personality and Social Psychology*, 32, 300-310.
- Worchel, S., & Mitchell, T. (1970). *An evaluation of the effectiveness of the Thai and Greek assimilators*. Seattle, WA: Organizational Research Group, University of Washington.
- Zais, R. S. (1976). *Curriculum principles and foundations*. New York: Harper and Row.

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