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Multidimensional Analysis of International Images Among College Students in Japan, Hong Kong, and the United States

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ABSTRACT. Cognitive maps produced by the perceived differences of four cultural groups were measured and compared by multidimensional scaling methods. The international images indicated by cognitive maps were significantly different from one another for college students from Japan, Hong Kong, and two distinct cultural sites in the United States. The perceived similarity structure of cognitive maps was found to be more stable than preference structure. The influence of international communication experiences on cognitive maps was somewhat mixed. Having foreign friends was consistently related with more complex cognitive maps, but having traveled abroad and having lived abroad were not consistently related.

INTERNATIONAL IMAGES and the factors that influence their formation have puzzled social scientists for decades. The experiences of World War II and the subsequent cold war have demonstrated that war starts within our minds and with the mutual perceptions we have of one another. As the frequency of interaction and degree of tension and conflict among countries increase, it is imperative to ameliorate international understanding and improve the images that countries have of one another.

The most common method for measuring international images empirically is the checklist method developed by Katz and Braly in 1933. Subjects of their study were asked to choose the adjectives from a given list that best described various national groups. Results showed a high degree of con-

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sensus among subjects on the traits assigned to national groups. Numerous studies have since investigated the stereotypes of one national group toward others and/or self-stereotypes (Buchanan & Cantril, 1953; Chandra, 1967; Jahoda, 1959; Vinacke, 1949). But in terms of the scope of study and the methods employed, few went beyond the Katz and Braly model. Katz and Braly's checklist method has been criticized for its tendency to accentuate stereotypes by forcing the respondents to choose from a given list (Ehrlich & Rinehart, 1965; Eysenck & Crown, 1948; Hamilton, 1981). Also, because respondents were asked to evaluate each nation individually and independently, it was not possible to map out the relationships among nations and/or their attributes. As a result of these methodological limitations, the treatment of stereotypes and international images as cognitive maps has continued as a metaphor rather than as a spatial representation.

Recently, a number of studies have investigated the structural aspects of international images. Typically, the respondents are required to judge how different two national groups are from one another on a scale from *very similar* (1) to *very different* (9). The resulting data are analyzed with some form of nonmetric multidimensional scaling, such as INDSCAL (Forgas & O'Driscoll, 1984; Funk, Horowitz, Lipshiz, & Young, 1976; Sherman, 1973; Wish, 1970). The main purpose of these recent studies, however, was to determine the nations' underlying dimensions rather than to construct an actual configuration (map) of the nations or their attributes.

The present study used direct magnitude estimates (Lodge, 1981; Stevens, 1966, 1975) to investigate international images as bona fide cognitive maps held by subjects about different countries vis-à-vis their own country. The maps were computed by means of a metric multidimensional scaling program (Torgerson, 1958; Woelfel & Fink, 1980).

Wish (1970) and Sherman (1973) found that varying factors affected the similarities or differences among cognitive maps. Wish found that political orientation, sex of the respondent, and the development level of one's country affected which dimension was most important for judging the differences among nations. Sherman found that attitudes toward war and anticipated social interaction were important factors. In the present study, cultural differences and international experiences were suggested as important influences on international images.

Cultural differences have been implied in previous studies by comparing two cultural or subcultural groups, but thus far the exact influence of culture has not been specified. Opposed to the cultural-difference hypothesis is the so-called global village effect, the homogenization of world culture resulting from increasing levels of international communication and economic development. Homogenization would lead to a decline in the intercultural differences in international images. The possibility of such competing and contradictory hypotheses warrants a systematic testing of the ef-

fect of national culture on international images. The first objective of the present study was to explore the degree and nature of the differences in international images resulting from national culture.

International images are not frozen into a group's existence but are modifiable by outside forces. If the cognitive map is a consequence of the placement process of the incoming stimuli, we would expect the formation of a cognitive map to be related to the amount and kind of information received and processed. A number of studies on immigrants, foreign visitors, and students have found that the perception of the host society becomes more complex and refined as one interacts more with members of the host society (Coelho, 1958; Kim, 1978; Lysgaard, 1955; Schild, 1962; Yum & Wang, 1983). The effect of firsthand experience is reduction of stereotyping—the shifting of the images from simple black and white perceptions to more qualified perceptions of the foreign reality. The second objective of the present study was to test this proposition: Those who have had international communication experiences will have more complex international images (cognitive maps) than those who have not had such experiences.

Another important aspect of international images is the nature of the internal structure of the images as cognitively mapped. For example, several studies have found that the similarity structure of cognition is more stable and higher in intersubject agreement than is preference structure (Mauser, 1983; Stefflre, 1972; Wish, 1970). To some extent the preference and similarity measures correspond to attitudes and beliefs, respectively. Woelfel and Fink (1980) proposed that the distance between the self-concept and other objects or attributes be treated as an attitudinal structure and the distance among the objects or attributes themselves be treated as a belief structure. Based on previous research, we would expect the perceived distances between the self-concept and nations to be less stable than the perceived distances among the nations themselves, regardless of one's national culture. Therefore, the third objective of the present study was to test the relative stability of attitudes compared to beliefs within the cognitive maps of international images.

Method

Sample Selection

A survey was conducted during 1981 and 1982 to investigate the communication patterns, international perceptions, and political behavior among college students in three different countries: Japan, Hong Kong, and the United States. The American sample consisted of 232 undergraduate students at a university in Albany, New York (126 men, 111 women; *M* age = 20.3) and 136 students at a university in Honolulu (54 men, 82 women; *M*

age = 21.4); the Japanese sample of 225 undergraduate students from a university in Tokyo (204 men, 21 women; *M* age = 18.9); and the Chinese sample of 234 undergraduate students from a university in Hong Kong (111 men, 113 women; *M* age = 19.9). Because the Hawaiian culture and its ethnic mix are very different from the mainland United States, the Honolulu sample was treated as an American subculture distinct from the Albany sample.[1] For all samples a self-administered survey was conducted in classes; for the non-American samples native-language questionnaires were prepared with the aid of back-translation procedures.

Measurement

The international images held by each national group were measured with a questionnaire that used complete pair comparisons and direct magnitude estimation of the differences between nations and their attributes (Woelfel & Fink, 1980). The psychological configuration (cognitive map) of each cultural group was represented by the average matrix $\bar{S}$, where any entry $s(i, j)$ was the arithmetical mean conception of the distance between objects i and j as seen by all members of the group. Each vector of the matrix represented the definition of a concept in terms of its relationship to all other concepts. This method enables a number of different cultures to be compared. The difference between two cultures, $\bar{S}(1)$ and $\bar{S}(2)$, at any one point is simply the degree of discrepancy, $\bar{S}(1) - \bar{S}(2)$.

Although these matrices provide precise representations of a cultural system's cognitive map, they are not in convenient mathematical form. By calculating the eigenvalues and eigenvectors of the scalar products of these matrices, the points representing beliefs may be projected onto the axes of a multidimensional Riemann space (Kincaid, Yum, Barnett, & Woelfel, 1983; Woelfel & Fink, 1980). This process is mathematically equivalent to converting a matrix of distances into a graphic representation like a map.

In the present study, subjects responded to a complete paired comparison instrument that asked them to estimate the differences among the following seven nations, two attributes, and self-concept: United States, England, China, Italy, Japan, France, Russia, economic abundance, national art and culture, and yourself.

The 10 concepts required 45 paired-comparison judgments per respondent, according to the following instructions: "If France and England differ by 100 units, how different are _____ and _____ ?" The respondents

[1]According to the 1980 census of Hawaii, 33.3% of the population was Caucasian, 24.8% was Japanese, 15.6% was Hawaiian or part Hawaiian, 11.3% was Filipino, 5.8% was Chinese, 1.9% was Korean, 1.8% was Black, and 5.9% belonged to some other group.

were instructed to keep this standard measure in mind as a guide for making direct magnitude (ratio) estimates of the distances among the 10 concepts. The paired comparison data for each university sample were entered into the Galileo™ version 5.2 computer program at the State University of New York at Albany. The maximum-value option was set at 1,000 to eliminate missing data (coded as 99999) and extreme values (1,001 or above).

The stability of the preference (attitude) structure was measured by the mean standard error of the seven paired comparisons between self-concept and the seven nations. Likewise, the stability of the similarity (belief) structure was measured by the mean standard error of the 21 paired comparisons among the seven nations themselves.

The complexity of the cognitive map was measured by the dimensionality of the multidimensional space; that is, the degree to which the amount of variance explained by the real dimensions was evenly distributed as opposed to peaked in the first few dimensions. Previous studies used only the amount of variance explained by the first dimension as the level of complexity. In the present study, the percent of variance explained by each dimension was entered into a general formula for calculating relative entropy. A more evenly distributed (complex) cognitive structure has a larger relative entropy than one peaked on the first one or two dimensions, according to the following formula for relative entropy:

$$H_{REL} = -\Sigma\, p_i \log_n p_i / \log_n N,$$

where H_{REL} is the relative entropy, p_i is the relative proportion of variance explained by each dimension (i), $\log_n$ is the natural logarithm function, and N is the number of alternatives in the set (in this case, 6 dimensions). The resulting measure can vary from a value of 0.00 to 1.00. Low values indicate low relative entropy; high values indicate high relative entropy (or greater cognitive complexity). In the present study, the relative entropy scores calculated for each cultural group ranged from .5527 to .8166.

International communication experience was measured by the following three questions: (a) Have you ever traveled abroad? (b) Have you ever lived abroad? (c) Do you have any foreign friends or acquaintances? These three questions were designed to measure the different levels of international communication experience and were used separately.

Results

In all four samples, the distance between Russia and self-concept (yourself) was the largest, whereas distance between one's own country and self-concept was the smallest. The Japanese sample had the shortest distance between the self and Japan (36), whereas students from Hong Kong had a

relatively large distance between the self and China (78). The distance between yourself and England in the Hong Kong sample was 165, more than twice the distance between yourself and China. This suggests that Hong Kong students identified more closely with China than with England despite their historical and political circumstances. In this context, it is interesting that students from Honolulu perceived a smaller distance between themselves and the United States (42) than students from Albany (53).

The grand mean of all 45 paired comparisons of the Albany sample was the smallest among the four samples (126.6), whereas the grand means of the Tokyo and Hong Kong students were larger and similar in size (168.9 and 168.4, respectively). Honolulu students were somewhat in between with a grand mean of 154.9. Five of the six differences among the grand means of the four samples were statistically significant; Tokyo and Hong Kong were virtually identical. Table 1 reports the results.

The relative sizes of the mean paired comparisons of the four samples corresponded to the relative sizes of their respective multidimensional spaces as indicated by the sum of eigenroots (trace). Albany had the smallest sum-of-roots (79,867), followed by Honolulu (124,875), Hong Kong (140,660), and Tokyo (145,658). Consequently, it may be concluded that, except for Hong Kong and Tokyo, the sizes of the cognitive maps of the four cultures were significantly different. The size of a group or subculture's multidimensional space may be considered as a measure of the degree of distinction or differentiation among the concepts included in the space. If so, Hong Kong and Tokyo showed the greatest degree of cognitive differentiation in their international image, followed by Honolulu, then Albany.

The spatial configuration of the results are presented in Figure 1. The cognitive maps of all four cultures were superimposed on one plot. The location of each nation or concept is indicated by the symbols that correspond to each data set. The close proximity of the objects across data sets

TABLE 1
Differences Among Grand Means of Means Matrix

Sample	Tokyo (168.89)	Honolulu	Albany
Honolulu (154.86)	14.03**		
Albany (126.59)	42.30**	28.27**	
Hong Kong (168.44)	.45	3.58*	41.85**

Note. Grand means are in parentheses.
*$p < .01$. **$p < .001$.

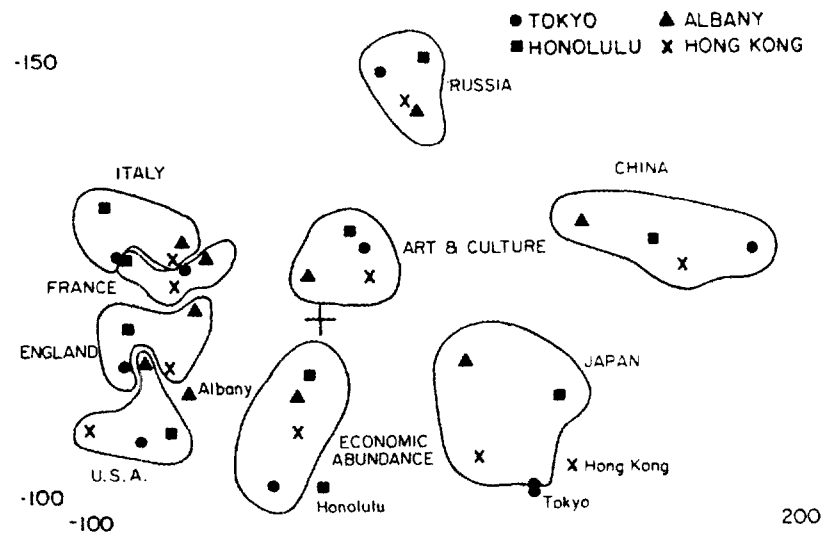

FIGURE 1: Two-dimensional plot of cognitive maps for Albany, Honolulu, Tokyo, and Hong Kong.

made it possible to represent the results with just one map. Each nation or concept was labeled and circled to separate it from the others. The location of each group's self-concept is indicated separately in the diagram.

Italy, France, England, and the United States were all located in a cluster on the left side of the map. China and Japan were located on the right side of the map, and Russia was somewhat isolated by itself on the top. The concept that was the most different from culture to culture was the self-concept, because each cultural group usually placed itself closer to its own country than to others. The exception to this tendency was the location of the Hong Kong students' self-concept as closer to Japan than to China, which was not an accurate reflection of the mean distances reported (78 between yourself and China and 171 between yourself and Japan). The inconsistency was a consequence of plotting only the first two dimensions of the entire multidimensional space. In the third dimension (not shown) the self-concept of Hong Kong was located back in the space closer to China than to Japan. In the cognitive map, Hong Kong's self-concept was pulled closer to Japan because of both Japan's and the self-concepts' perceived proximity to economic abundance as opposed to Russia on the second dimension alone.

It was somewhat surprising that national art and culture was consistently in the middle of the map among all four samples, suggesting that

each of the seven countries included had a legitimate claim to it. Economic abundance was perceived as closest to the United States and Japan, followed by England, France, and Italy in that order, and at a relatively great distance from Russia on the first dimension and China on the second dimension.

Cross-Cultural Differences

To examine the differences in the configuration of the maps, each of the multidimensional spaces was compared to the others by means of the Galileo™ computer routine for rigid-body rotations to a least-squares best fit. The results revealed the differences remaining between the ten concepts of one space and another after the rotation had transformed away spurious differences in the orientations of two reference frames (Woelfel & Fink, 1980). The results were the best indication of the overall differences in the relative locations of the conceptual objects between two cultural groups. The map in Figure 1 only shows the remaining differences among the four samples on the first two dimensions. The differences in the spatial location of each concept between each pair of cultural groups required six comparisons. The mean differences among the concepts for all six comparisons were statistically significant. The smallest average difference was between Tokyo and Hong Kong (32.4, $t = 17.88$, $p < .001$), followed by Tokyo–Honolulu (34.0, $t = 17.78$, $p < .001$) and Honolulu–Albany (36.4, $t = 19.29$, $p < .001$), whereas the largest average difference was between Albany and Hong Kong (50.7, $t = 20.30$, $p < .001$). The difference between the international images of Honolulu and Albany students was slightly larger than the difference between Honolulu and Tokyo students, which lent support to the hypothesis that Hawaii with its mixed cultures from Asia, the Pacific, and the U.S. mainland would have an international image as similar to an Asian culture such as Tokyo as to an American culture such as Albany, New York.

As expected, the greatest single conceptual difference between two distinct cultures was the location of the self-concept. In some cases the difference between the location of self-concept was twice as great as the average distance for the whole set. The largest difference in self-concept was between Albany and Hong Kong (123.3). The smallest self-concept differences occurred between Tokyo and Hong Kong (25.7). Both results are consistent with the two-dimensional cognitive map in Figure 1. The next smallest difference in the location of the self-concept was between the Albany and the Honolulu samples (43.36), which are, after all, part of the same national boundary even if the regional differences within were pronounced in this instance.

International Communication Experiences

To accomplish the second objective of the study, each sample was classified according to whether or not they had traveled abroad, had lived abroad, or had foreign friends or acquaintances. This yielded 12 subsample comparisons. The data revealed that six real dimensions and three imaginary dimensions were required to accomodate all the variance. Only the six real dimensions were used to measure complexity. Table 2 reports the entropy measures of cognitive complexity for each group according to its members' international experiences.

The results were mixed. Eight out of 12 comparisons (those with asterisks) revealed differences in the expected direction (i.e., international communication experience produced more complex cognitive maps as indicated by larger entropy scores). Four comparisons were in the opposite direction. The only variable that had consistent results for all four samples was having foreign friends or acquaintances. Those who had foreign friends or acquaintances had more complex international images (cognitive maps) than those who did not.

Cognitive Stability

To accomplish the third objective of the study, I calculated the mean standard errors for seven pairs (between oneself and seven nations: $M = 13.76$, $SD = 2.078$) and the mean standard errors for 21 pairs (paired comparisons among the seven nations themselves: $M = 9.92$, $SD = 3.438$). The difference between these two means was statistically significant beyond the .001 level ($t = 8.3191$) for all four samples combined. As proposed, the mean distance that a cultural group perceived among the nations themselves was characterized by significantly smaller standard errors than the mean dis-

TABLE 2
Cognitive Complexity (Entropy) of Each Conceptual Space by International Experiences

	Traveled Abroad		Lived Abroad		Foreign Friends	
Sample	Yes	No	Yes	No	Yes	No
Tokyo	.7379	.7594	.7415	.7599	.7705*	.7624
Honolulu	.7840*	.7461	.6908	.7919	.7966*	.7361
Albany	.7660*	.6355	.7202*	.6840	.7385*	.5527
Hong Kong	.7655*	.7547	.6019	.7985	.8166*	.7115

*Differences in complexity were in the expected direction (Yes > No).

tances between the group's self-concept and those nations. Thus, the perceived relationships among the national concepts themselves were significantly more stable than their relationship to the self-concept.

Discussion

This study has demonstrated the value of approaching international images from a cognitive perspective. Cognitive maps produced by the perceived differences of each cultural group were precisely measured and compared by metric multidimensional scaling methods. Stereotype studies have provided the theoretical groundwork for international image studies, but most studies have been hampered by inadequate measurement procedures and conceptualization. The results supported the first objective of the study, that is, to represent international images by cognitive maps that would reveal cultural differences in a valid, meaningful way. The cognitive maps of Japan and Hong Kong were found to be the most similar in size and shape, whereas Albany and Hong Kong and Albany and Tokyo were the most different. Honolulu, as a mixed culture located culturally and geographically between Asia and the United States mainland, was found to be approximately equidistant between these two different cultural groups in terms of the cognitive map of their international images.

The finding that the Hong Kong sample's perceived distance between itself and England was twice as great as between itself and China even after 99 years of a political and commercial relationship shed some light on colonialism. It suggested that cultural background rather than political and economic structure determines the self-identity of groups. The hypothesis that geography was the determinant of these images was contradicted by the Honolulu sample. Geographically, Hong Kong is closer to Japan than is Honolulu, yet the difference between the self-concept of the Hong Kong sample and Japan was 171 units, larger than the 121 units reported by the Honolulu sample between their self-concept and Japan. Furthermore, the distance between the Honolulu sample's self-concept and the United States was smaller than the mainland sample's distance. Hawaii is the youngest state in the United States, and people in Hawaii may feel a strong identification with the United States to compensate for the general image of Hawaii as a separate country rather than as part of the United States. When I was conducting an earlier study in Hawaii, many second- and third-generation Japanese refused to be labeled Japanese-Americans, preferring to be called just Americans.

The relationship between international communication experiences and international images, however, was not as straightforward as expected. Among the three variables included as international communication experiences, only having foreign friends resulted in a consistent relationship

among the four samples. Having foreign friends increased the complexity of each group's cognitive map. This finding is congruent with previous research, which has found that having established close and friendly personal relations with foreigners is the most important factor in changing one's international images (Sellitz & Cook, 1962).

The findings of the study supported the modified version of the contact hypothesis. The contact hypothesis, which proposes that cross-cultural contact per se leads to enhancement of attitudes toward the countries contacted, has been questioned in recent years. A modified contact hypothesis suggests that contact will have a positive effect on intergroup attitudes when several favorable conditions exist: equal status between the members of the contact, favorable authority and social climate, intimate rather than casual contact, rewarding contact, and functionally important interaction (Amir, 1969; Robinson & Preston, 1976). Having foreign friends satisfies most of the conditions of the modified contact hypothesis.

The simple dichotomous measurements of traveling abroad and having lived abroad are probably not sufficient to reveal the complexity or the impact of complex international experiences. At this point, however, we have to conclude that simple experience in foreign countries through travel or living does not necessarily bring about changes in every cultural group's international images as measured by these cognitive maps. Personally established, equal-status experiences, such as friendship, however, do seem to influence the structure of such cognitive maps in a consistent way.

The third objective of the study was to demonstrate that the perceived distance between one's self-concept and nations was less stable than the perceived distances among the nations themselves. When one is judging the distance between a certain country and oneself, one is personally involved and one's liking or attraction to the country is involved in the judgment. On the other hand, one's judgment of any two nations will be more objective and will reflect the general belief system prevalent in the culture, thus diminishing individual differences. Therefore, the configuration among nations was found to be more stable and to fluctuate less from sample to sample than the relationship between the self and those nations.

These results imply that culture's self-concept with respect to other nations is potentially more volatile than its perception of other nations per se. Fluctuations over time between a culture's self-concept and another nation may be a good indicator of the state of relations between the two countries and could even be used to predict an improvement or deterioration in international relations. In this sense, the utility of international image mapping has barely been realized. The procedures and measurement techniques used in the present study offer a new alternative that should expand the application and value of the study of international images.

REFERENCES

Amir, Y. (1969). Contact hypothesis in ethnic relations. *Psychological Bulletin, 71,* 319-342.

Buchanan, W., & Cantril, H. (1953). *How nations see each other.* Urbana, IL: University of Illinois Press.

Chandra, S. (1967). Stereotypes of university students toward different ethnic groups. *Journal of Social Psychology, 71,* 87-94.

Coelho, G. (1958). *Changing images of Americans: A study of Indian students' perception.* New York: Free Press.

Ehrlich, H., & Rinehart, J. (1965). A brief report on the methodology of stereotype research. *Social Forces, 43,* 564-575.

Eysenck, H., & Crown, S. (1948). National stereotypes: An experimental and methodological study. *International Journal of Opinion and Attitude Research, 2,* 26-39.

Forgas, J., & O'Driscoll, M. (1984). Cross-cultural and demographic differences in the perception of nations. *Journal of Cross-Cultural Psychology, 15,* 199-222.

Funk, S., Horowitz, A., Lipshiz, R., & Young, F. (1976). The perceived structure of American ethnic groups: The use of multidimensional scaling in stereotype research. *Sociometry, 39,* 116-130.

Hamilton, D. (1981). *Cognitive processes in stereotyping and intergroup behavior.* Hillsdale, NJ: Erlbaum.

Jahoda, G. (1959). Nationality preferences and national stereotypes in Ghana before independence. *Journal of Social Psychology, 50,* 165-174.

Katz, D., & Braly, K. (1933). Racial stereotypes of one hundred college students. *Journal of Abnormal and Social Psychology, 28,* 281-290.

Kim, Y. (1978). A communication approach to the acculturation process: A study of Korean immigrants in Chicago. *International Journal of Intercultural Relations, 2,* 197-224.

Kincaid, D., Yum, J., Barnett, G., & Woelfel, J. (1983). The cultural convergence of Korean immigrants in Hawaii: An empirical test of a mathematical theory. *Quality and Quantity, 18,* 59-78.

Lodge, M. (1981). *Magnitude scaling: Quantitative measurement of opinions.* Beverly Hills, CA: Sage.

Lysgaard, S. (1955). Adjustment in a foreign society: Norwegian Fulbright grantees visiting the United States. *International Social Science Bulletin, 7,* 45-51.

Mauser, G. (1983). *Political marketing.* New York: Praeger.

Robinson, J., & Preston, J. (1976). Equal-status contact and modification of racial prejudice: A reexamination of the contact hypothesis. *Social Forces, 54,* 911-924.

Schild, E. (1962). The foreign student, as stranger, learning the norms of the host culture. *Journal of Social Issues, 18,* 41-54.

Sellitz, C., & Cook, S. (1962). Factors influencing attitudes of foreign students toward the host society. *Journal of Social Issues, 18,* 7-23.

Sherman, R. (1973). Dimensional salience in the perception of nations as a function of attitudes toward war and anticipated social interaction. *Journal of Personality and Social Psychology, 27,* 65-73.

Stefflre, V. (1972). Some application of multidimensional scaling to social science problems. In A. Romney, R. Shepard, & S. Nerlove (Eds.), *Multidimensional scaling: Theory and application in the behavioral sciences* (Vol. 2, pp. 211-248). New York: Seminar Press.

Stevens, S. (1966). A metric for the social consensus. *Science, 151,* 530-541.

Stevens, S. (1975). *Psychophysics.* New York: Wiley.
Torgerson, W. (1958). *Theory and method of scaling.* New York: Wiley.
Vinacke, W. (1949). Stereotyping among national–racial groups in Hawaii: A study in ethnocentrism. *Journal of Social Psychology, 30,* 265–291.
Wish, M. (1970). Differences in conceptual structure of nations: An exploratory study. *Journal of Personality and Social Psychology, 16,* 361–373.
Woelfel, J., & Fink, E. (1980). *The measurement of communication processes: Galileo theory and method.* New York: Academic Press.
Yum, J., & Wang, G. (1983). Interethnic perception and communication behavior among five ethnic groups in Hawaii. *International Journal of Intercultural Relations, 7,* 285–308.

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