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ABSTRACT

College students from colleges and universities throughout the United States were surveyed about the location of the world's 50 most populous countries. Over 3,300 responses were examined to determine the perceived geographic range of given countries, the regional degree of accuracy among students, and the overall significance of response errors. As a group the students were able to locate less than half of the countries. Data for 35 countries are presented in this paper. Most accurately identified were the United States, Canada, Mexico, China, U.S.S.R., and Australia. Countries about which students know the least are Ceylon, Indonesia, Ethiopia, Burma, Nepal, Iran, Nigeria, and Zaire. Over half of the 35 countries were misplaced in 50 or more other nations. Latin American countries were generally misplaced in other Latin American countries. A similar pattern was exhibited for Asian countries. The regional adjacency pattern for Middle Eastern and North African nations was more complex, with Egypt being placed in other Middle Eastern countries and Turkey sometimes being placed in Europe. African countries, when located, were mainly placed in Africa, although there was a 12% tendency to place Ethiopia in the Middle East. Conclusions are that students can associate given countries with proper regions even if they do not know exact location, and that there is an adjacency pattern for several European countries including France, Spain, West Germany, and Poland. Two tables summarize responses. (Author/AV)

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## MISPLACED NATIONS: STUDENT PERCEPTION OF NATION LOCATION

One recent investigation of place-awareness among college students indicates that the general level of place-awareness is not high. The results of that survey conducted among 3,302 students from 30 colleges and universities throughout the United States and published in the November issue of the Journal of Geography, shows a mean score of 24.36 registered by the 3,302 students tested. As a group they were able to locate less than half of the world's 50 most populous countries.

Owing to the large number of errors recorded, some questions arose relative to student perception of nation location. Where did students misplace the 50 most populous nations? Consequently, the 3,302 maps were re-examined to determine the following aspects:

- The full range of nation-location errors for a given country. This would indicate the perceived geographic range of a given country.
- The pattern of errors for world regions including Anglo-America, Latin America, the Middle East and North Africa, Africa, Asia, and Europe. This would suggest the regional degree of accuracy among students.
- The overall general significance of these errors.

This working paper summarizes the results for 35 countries for which data are available. Each map was manually regraded by making notations for the location of each misplaced country. Crude numerical summations are presented in tables.

The percent of students correctly locating countries is given in Table 1, with the listing given from the highest mean score to the lowest, or the country most often correctly located to the country least often correctly located. This range shows that students were able to locate some nations better than others. Note the extreme of correct responses for the United States, with over 98 percent correct, to that of Zaire for which only 12 percent of the responses were correct.

The range of locations for the 35 misplaced countries, indicated in the third column of Table 1, is considerable, between 5 and 85. The average is about 45 countries. As expected, the United States, with the highest correct responses, has the smallest range of errors. It is assumed that some of these locations were made in jest; however, it is possible that not all students know or are able to identify spatially the location of the United States. A comparatively small range of countries were mistaken for other nations including Canada, Mexico, China, the U.S.S.R., and Australia. There are less than 20 mistaken nations per country in this group.

The number of misplaced nations per country which two-thirds of the students were able to identify, seems to fluctuate considerably. For example, although 91 percent of the students could correctly locate Italy, the mislocations include 45 other countries. Here, the perception of shape and the problem of small size may be factors contributing to the wide range of responses. In contrast to Italy, the

range of mislocations for Brazil and India, two large countries, are not numerous. While insular shape may be a factor in the small range of mislocations for Japan, it was not correspondingly so for the United Kingdom, which was placed in 62 other countries.

Over half of the 35 countries were misplaced in 50 or more other nations. This would suggest that as the percent of students correctly locating countries decreases, the phenomenon of guessing locations increases to a point, after which the student simply gives up and does not try to locate a country. This latter aspect is demonstrated in the fourth column which indicates the number of "no responses" per country. Clearly, a small number of no responses occurs for the most correctly located nations such as the United States and Canada, and some attempt is made to locate Latin and European nations. However, about one-third of the students did not attempt to locate African or Asian nations--to the extreme extent that two-thirds of the persons tested did not attempt to locate Zaire. The average number of no responses per country is 681 or about 20 percent of the students.

It is important to note that the no-locations include the placement of countries in oceans or seas. There was no attempt to distinguish these areas from terrestrial locations. But it is worthy of note that there appears to be a tendency to place the countries which border the Mediterranean Sea in the sea itself. This may be a function of the map projection used; nevertheless, it is a subject which requires further investigation.

The total number of mistaken nation locations per country is in itself significant in determining the student's world view of a given country; however if the mislocations per nation form part of a region in which that nation is located, then the level of errors takes on a new dimension. If for example France is misplaced in primarily European countries, then we can assume that some students are successful in locating the region in which a given country is associated.

The extent to which errors follow a regional pattern can be assessed by viewing the regional adjacency profile for selected countries, as indicated in Table 2.

For North America, that is the United States and Canada, and Australia the smaller number of responses and the regions involved would suggest no regional pattern or error.

Relative to the Latin America countries tested, there is a clear tendency to place the respective nations in other Latin America countries. For example, nearly one-third of the students placed Peru in Latin America and nearly one half of the persons placed Colombia in Latin America.

The regional adjacency pattern for Middle Eastern and North African nations is more complex. Egypt is placed in other Middle Eastern countries mainly. About 11 percent of the students placed Turkey in the Middle East and about 12 percent placed her in Europe-- a testimony to her geographic position. While 17 percent of the

students placed Iran in the Middle East, 11 percent placed her in Asia. In this case, the vast majority of locations were confined to Afghanistan and Pakistan.

African countries, when located, were mainly placed in Africa. This pattern holds true especially for South Africa and Zaire for which 20 and 17 percent of the students correctly placed their locations in Africa. In the case of Ethiopia, there was a 12 percent tendency to place it in the Middle East, primarily in Algeria and Libya. Of the African locations, over 16 percent of the students placed Ethiopia in the Sudan. Sixteen percent of the students placed Nigeria in the Middle East, of which two countries, Algeria and Libya contributed 15 of the 16 percent of the locations. Over 32 percent placed Nigeria in other Africa locations, the more important of which include the Sudan (7 percent), Niger (6 percent), Mauritania (3 percent), and Chad (about 3 percent).

Most of the Asian countries are placed in Asia. The European position of China is attributed to the placement of that nation in the Soviet Union. The total number of India's mislocations are small. She was confused with Iran in the Middle East and Pakistan, China, and Burma in Asia. Nine percent of the students placed Japan in the Philippines and Indonesia. Relative to Pakistan, about 6 percent of the students placed her in India and Nepal.

One would assume that if the location of North Korea or North Viet Nam were known, then the location of South Korea and South Viet Nam could be deduced. While this statement and its converse is true for the Koreas, it is not as apparent for the Viet Nams. Six percent of the students placed North Viet Nam in Thailand, 8 percent placed her in Laos, 3 percent in South Viet Nam, and 2 percent in North Korea. As indicated in the first transparency, less people were able to correctly locate South Viet Nam than North Viet Nam; nearly 25 percent of the students did not attempt to locate the nation. Five percent of the students placed South Viet Nam in Cambodia; Thailand, Laos, and Malaysia each received three percent of the student locations. A factor in the explanation of this pattern may be that the students were unable to distinguish the international boundaries separating North from South Viet Nam, on the map projection provided.

The country of Ceylon or Sri Lanka was misplaced in a variety of countries including all regions except North America. The highest percent of mislocations, three percent, occurred in Italy. Five percent of the students mislocated Indonesia in Burma and 4 percent mislocated Indonesia in Thailand. Less than 3 percent associated her with the Philippines. Judging by the wide range of responses, it is uncertain that students made an association of Indonesia with an island nation.



Both Burma and Nepal occurred in 85 different countries, representing all the world regions. Relative to Burma mislocations, about 5 percent of the students placed her in Pakistan and another 5 percent placed her in Thailand. About 3 percent of the students placed Nepal in Bhutan and Pakistan each. In both cases these figures are the highest single nation percent of mislocation. Over 13 percent of the students placed the Philippines in Indonesia and another 5 percent placed her in New Guinea. The occurrence of the Philippines in Latin America--where 5 percent of the students placed her in the West Indies, is attributed to a misassociation of island nations with which the United States is closely connected.

Relative to the European countries, Russia's Asian location is the result of an association of that country with China. The location of Italy was evenly distributed among 45 nations, as was that of France's among 49 countries. The only pattern for the latter is a small association of that country with Spain and West Germany. About 4 percent of the students marked these two locations. Mislocations of Spain are evenly distributed among 51 countries with about 2 percent the highest amount, in association with France. The United Kingdom was fairly evenly distributed among 62 nations. This may be owing to the lack of acquaintance of the students' part, of the term U. K. Poland was located mainly in Romainia, Czechoslovakia, Hungary, and West Germany, 6, 4, 3, and 3 percent, respectively.

Conclusions: Several patterns are evident from this initial survey:

- 1) Most of the mislocated countries are placed in the correct region, which would suggest that while the student may not know the exact location of a specific country, he is able to associate it with the proper region.
- 2) There is an adjacency pattern for several European countries including France, Spain, West Germany, and Poland. This pattern also occurs for Ethiopia and several Asian nations.
- 3) A misassociation of name and location may account for the association of Nigeria with Algeria, and the United Kingdom with some African and Asian nations.
- 4) The less the student knows about the country, the more wild the guesses as to its location and the more "no responses."

While we can no longer assume that a given student will be able to accurately locate a given country, it is reasonable to assume that he might be able to place the country in the proper world region. However, there are some countries about which students know little and thus have no idea as to with what they can be associated. This is true for Ceylon, Indonesia, Ethiopia, Burma, Nepal, Iran, Nigeria, and Zaire.

In view of the fact that only one-fourth of the world's nations have thus far been investigated initially, the difficulties in assessing perception of nation location should be further examined and tested.

TABLE 1

## Student Perception of Nation Location for 35 Selected Countries

Country	Percent of Students Correctly Locating Countries %	Number of Mistaken Nations per Country	Number of No Locations per Country <sup>1</sup>
U.S.A.	98.64	5	24
Canada	97.59	10	33
Mexico	95.58	18	54
China	94.15	15	102
U.S.S.R.	93.64	9	37
Australia	92.66	19	190
Italy	91.06	45	180
Brazil	89.85	25	131
India	89.12	27	151
France	84.57	49	196
Spain	84.05	51	282
U.K.	75.92	62	558
Japan	70.13	31	383
Argentina	68.36	52	436
S. Africa	62.81	37	455
Egypt	58.43	46	467
N. Vietnam	54.53	44	573
Philippines	53.57	38	566
S. Vietnam	51.92	48	810
Pakistan*	49.17	51	760
S. Korea	48.45	32	979
N. Korea	48.42	47	1036
Peru	47.16	53	665
Turkey	45.46	59	842
Poland	43.75	47	990
Colombia	42.38	52	759
Thailand	37.34	58	930
Ceylon**	27.65	83	1488
Indonesia	25.04	56	1261
Ethiopia	22.61	69	1162
Burma	21.18	85	1465
Nepal	19.88	85	1886
Iran	18.44	64	1017
Nigeria	15.87	56	1037
Zaire	12.62	60	1947

\* Includes Bangladesh

\*\* Used rather than its proper name, Sri Lanka

<sup>1</sup>Includes placement in oceans or seas.

TABLE 2

## Regional Adjacency Profile for Selected Mislocated Countries

	Number of Occurrences per Region					
	N. Am.	La. Am.	Middle E.	Africa	Asia	Europe
<b>North America</b>						
U.S.A.	0	4	0	3	0	0
Canada	6	3	0	1	4	2
<b>Latin America</b>						
Mexico	9	23	1	3	2	0
Brazil	0	115	17	20	7	2
Argentina	0	522	12	37	20	7
Peru	0	1013	19	25	17	4
Colombia	0	1493	30	51	7	5
<b>Middle East (N. Africa)</b>						
Egypt	1	2	685	52	68	19
Turkey	0	3	355	21	165	399
Iran	0	0	550	80	365	49
<b>Africa</b>						
So. Africa	0	38	8	671	4	3
Ethiopia	0	28	401	1044	65	6
Zaire	0	2	27	576	16	5
Nigeria	2	79	534	1074	16	3
<b>Asia</b>						
China	1	1	6	1	16	107
India	0	4	24	8	47	3
Japan	0	4	23	9	519	54
Pakistan	0	6	151	37	414	7
So. Korea	0	4	29	14	621	21
No. Korea	0	3	14	10	475	36
N. Vietnam	0	3	17	8	751	19
So. Viet Nam	0	3	17	9	672	17
Ceylon	1	10	85	149	271	208
Indonesia	0	6	60	38	652	12
Burma	0	12	101	155	840	12
Nepal	1	8	157	184	284	90
Thailand	2	3	29	23	847	18
Philippines	10	166	2	11	688	4
Australia	0	8	1	6	11	3
<b>Europe</b>						
U.S.S.R.	4	1	0	0	158	1
Italy	0	3	20	9	12	49
France	0	7	29	19	13	247
Spain	0	13	27	14	12	140
U.K.	2	5	49	73	16	107
Poland	1	2	64	8	32	990