

## Attitude Content and Agreement Set in the Autonomy Scale for Filipino, American, and African University Students\*

A. Paul Hare and Dean Peabody

For the past ten years, the relationship between attitude content and agreement set in a variety of scales has been discussed in social-psychological literature.<sup>1</sup>

Peabody (1961) used samples of university students from the United States and the United Kingdom, as well as reports of previous research, to demonstrate that even in scales containing an equal number of positive and negative items, the two sources of variation, attitude and agreement, are still present. This is indicated by the fact that the variance and reliability of items reflecting authoritarianism or conservatism are greater than those of items reflecting autonomy and a radical outlook.<sup>2</sup> Thus, authoritarian items carry the greatest weight in the total scale, so that the average correlation between the total scale and the agreement-response set is positive if the scale is scored for authoritarianism, and negative if the scale is scored for autonomy.<sup>3</sup>

This study replicates Peabody's findings on university students, with the use of samples of students from the Philippines, United States, and Africa. It also reports selected social-background variables associated with high scores on the agreement-response set or on autonomy.

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<sup>1</sup> Attitude content is that attitude or trait a scale measures. Agreement set may be defined as acquiescence, or the tendency to answer positively.

<sup>2</sup> Autonomy may be defined here as that personality trait which manifests any of the following qualities: resistance to influence or coercion, independent-mindedness and striving for independence, seeking of freedom (in a new location). It may even manifest itself at times as defiance of authority.

Its opposite is authoritarianism, a personality trait characterized by repression of unacceptable motives, projection of blame on others, conventionalism, conformity, and power orientation toward others.

<sup>3</sup> Agreement-response set is measured by the total number of "Yes" answers.

*Table 1*  
*Scores of student subjects on autonomy scale classified by measure used, crossclassified by sample.*

<i>Measure</i>	<i>Sample (total N in parentheses)</i>								
	<i>Haverford</i> (36)	<i>Capetown</i> (279)	<i>Criterion</i> <sup>1</sup> (103)	<i>Ibadan</i> (250)	<i>Nsukka</i> (336)	<i>Communi- cation</i> <sup>2</sup> (160)	<i>Ife</i> (75)	<i>Ateneo</i> (145)	<i>Gwelo</i> (47)
Score for 18 plus items									
Mean	13.42	11.15 <sup>3</sup>	11.51	11.38	11.79	11.12	11.63	11.06	9.62
Standard deviation	2.52	2.03	2.21	2.09	1.86	1.84	1.83	2.34	1.80
Reliability	0.66	0.45	0.34	0.33	0.17	0.12	0.12	0.45	0.25
Score for 18 minus items									
Mean	4.14	7.53	10.53	10.46	10.98 <sup>4</sup>	10.44	11.69	11.45	12.06
Standard deviation	2.93	3.23	3.14	2.70	2.47	2.54	2.38	3.22	2.37
Reliability	0.72	0.68	0.69	0.57	0.52	0.48	0.46	0.68	0.46
Score for total scale									
Mean	27.28	21.62	18.98	18.92	18.82	18.68	17.93	17.61	15.55
Standard deviation	4.41	4.43	4.32	3.68	3.33	3.39	3.60	4.22	3.49
Reliability	0.76	0.71	0.65	0.54	0.47	0.44	0.54	0.63	0.55
Correlation between plus and minus scores	-0.31	-0.39	-0.28	-0.16	-0.17	-0.18	-0.45	-0.13	-0.38
Correlation between total scale and agreement set	-0.16	-0.46	-0.35	-0.25	-0.28	-0.31	-0.29	-0.31	-0.29
F ratio for variance of plus versus minus scores	1.35	2.54	2.03	1.66	1.76	1.90	1.69	1.89	1.73
Probability of F ratio less than	0.10	0.02	0.02	0.02	0.02	0.02	0.10	0.02	0.10

<sup>1</sup> Stands for "criterion group" sample drawn from the University of Ibadan.

<sup>2</sup> Stands for sample of students used in "communication network" experiment at the University of Ibadan.

<sup>3</sup> Only 14 plus items were used; four items adjudged controversial were not given (see also A. P. Hare and Rachel T. Hare 1968: [this volume]).

<sup>4</sup> Only 17 minus items were used; one item was not given.

*The Autonomy Scale and the Sample*

The development of the 36-item autonomy scale used in the present analysis and the relationship between the scale and social-background characteristics of university students are described in this volume, in the report immediately preceding this (A. P. Hare and Rachel T. Hare 1968: [this volume]).<sup>4</sup>

To summarize the method and findings of that study: An autonomy scale and a social-background questionnaire, essentially the same in all cases, were given to students at the Ateneo de Manila University in the Philippines, Haverford College in the United States, University of Capetown in South Africa, the Universities of Ibadan, Ife, and Nsukka in Nigeria, and Gwelo Teachers College in Rhodesia. To receive a high score on autonomy, a student would have to agree with half of the items in the scale and questionnaire, and disagree with the other half. Since many of the items in the scale and questionnaire were similar to those used in the F Scale, which measures authoritarianism, a high score on autonomy might be considered as representing a low score on authoritarianism.

With the exception of the Philippines, students from the more developed nations were found to have higher autonomy scores than students from less developed lands (Table 1). The samples have been arranged with the highest average score appearing on the left of the table.

The differences were significant between the means of the following samples: Haverford and Capetown, Capetown and the Nigerian universities, Ateneo and Gwelo. However, neither the differences among the Ibadan, Ife, and Nsukka samples in Nigeria, nor the difference between the Ife and Philippine samples, were significant.<sup>5</sup> When considered in the light of the generally higher level of economic development (compared to that of most African states) of the Philippines, the rather low value placed on autonomy is probably a reflection of a high value placed by the culture on dependence on older persons and peers.

Within nationality groups, men had higher autonomy scores than women at Capetown, the only university where there were enough women in the sample to be used in a test. Expected differences among tribal, religious-group, father's-occupation, and birth-order samples did not appear consistently, although in the Nigerian sample, Protestants scored higher than Catholics, and students with farmer-fathers scored lower than those who had fathers

<sup>4</sup> A more detailed description and analysis of the data gathered in the study cited will be found in an article by the same authors to be published (1969) in the *Journal of Social Psychology*.

<sup>5</sup> Three of the Nigerian samples were composed of University of Ibadan students. One was general, designated "Ibadan." Another was used as a "criterion group" in the development of the autonomy scale (Hare and Hare, in press). The third sample consisted of students who took part in a "communication network" experiment (Hare 1966).

with higher-ranking occupations. The relationship between age and autonomy depended on the nationality of the student. Among students with an African background, those who were "younger" (20-23) were more autonomous than those who were "older" (24-29). However, among students with a European background in South Africa and among Filipino students, the "very young" (20 or less) scored lower on autonomy than those who were "older" (21 or more). Differences brought about by the variable of age may be related to the level of development of the different countries involved.

### *Method and Findings*

*Plus items and minus items.* With the method and terminology of Peabody (1961) as a model, the 36-item autonomy scale was divided into two sets of items. Those which required a "true" response for a high autonomy score were called "plus" items, and those which required a "false" response, "minus" items. The means, standard deviations, and Kuder-Richardson reliability coefficients for the plus items, the minus items, and the total scale are given in Table 1.<sup>6</sup> Also given are the correlation between the plus and minus scores, the correlation between the total score and a measure-of-agreement set, and the F ratios for the variance of the minus scores divided by the plus scores.<sup>7</sup>

The average correlation between the agreement set and the total scale, and between the plus and minus items, is about -0.30. This indicates that both a tendency to agree and a tendency to respond to the content of the items are operating. On the average, subjects were more likely to agree with the plus items—the mean for these items being higher in six of the nine samples. A more significant fact, however, is that in all nine samples, the standard deviation is higher for the minus items.<sup>8</sup> These findings would be similar to those of Peabody if his plus items, which represent authoritarianism, were taken to be comparable to the minus items of this study. Thus, items worded in the direction of authoritarianism tend to lead to lower average agreement and greater variance than items worded in the direction of autonomy. In this case, agreement with the minus items would contribute more to the total autonomy score than agreement with the plus items.

The reliability of the minus items is higher than that of the plus items in all nine samples,<sup>9</sup> and higher than the reliability for the total scale in five of the nine samples. This means that the attitude of subjects who agree with items

<sup>6</sup> To get the score for minus items, the number of times a person answers "true" to an item with reversed content is counted.

<sup>7</sup> The agreement set is the total number of times a subject agreed with the 36 items in the scale.

<sup>8</sup> Using a sign test, the difference is significant at the 0.01 level (cf. Siegel 1956: 68); in six cases, the F ratio is significant, with a probability of less than 0.05.

<sup>9</sup> Again, the level of significance is 0.01.

worded in the direction of autonomy is measured *less* reliably than the attitude of subjects who agree with items worded in the direction of authoritarianism.

*Attitude content, agreement set, and background variables.* To distinguish subjects whose scale scores represented primarily attitude content from those whose scores represented primarily agreement set, each sample was divided into two pairs of sets. The first pair was composed of "yeasayers," those high on agreement with both the plus and minus items, and the "naysayers," those low on agreement with both types of items. The second pair was composed of autonomous subjects, those who agreed with the plus items and disagreed with the minus items, and the authoritarians, those disagreeing with the plus items and agreeing with the minus items.

Previous research indicated that the background variables which seemed most likely to correlate with one or the other of these two dimensions were sex, ethnic group, religion, father's occupation, birth order, and age. It was hoped that in the present study, some significant relationship also could be found between these sets and the age at which a subject was separated from one or both parents. However, no consistent results appeared.

The associations between background variables and either yeasaying or autonomy for the five Nigerian samples shall first be considered.<sup>10</sup> The results obtained from this sample shall then be compared with the results for the other nationality samples and the findings of previous research.

*Yeasaying and autonomy correlated with ethnic group.* For the variable of ethnic group, a test for autonomy was conducted only for the Yoruba and Ibo in Nigeria since these were the two main tribes included in the samples. There were neither significant trends nor significant associations in the other nationality samples.

In three of the Nigerian samples, the Yoruba appeared to be yeasayers;<sup>11</sup> in the other two samples, however, the Ibo were the yeasayers. Overall evidence does not support the conclusion that there is any consistent relationship between ethnic group and yeasaying in Nigeria, even though in the Nsukka sample the probability is less than 0.05.

In the Ateneo sample, those students with a Chinese background scored higher in yeasaying than those from other Philippine ethnolinguistic groups. There were no apparent relationships between yeasaying and the variable of tribal or language group among the other national samples.

*Yeasaying and autonomy correlated with religion.* The predominant religious groups in the Nigerian samples were Protestant and Catholic. Although the association was not statistically significant, the Protestants scored lower than the Catholics in four of the five samples. As for autonomy, the Protestants

<sup>10</sup> A chi square test was used.

<sup>11</sup> The combined chi square was not, however, significant.

were significantly higher in all five samples. There were no significant associations between either autonomy or yeasaying and religion in the other samples (see Table 2).

Table 2  
Nigerian student subjects classified by sample and religion, crossclassified by attitude content of autonomy scale.

Sample	Religion	Attitude content		Chi square	Degree of freedom	Significance <sup>1</sup>
		Autonomous	Authoritarian			
Criterion group (Ibadan)	Protestant	21	15	0.8653	2	n.s.
	Catholic	5	4			
	Other	6	2			
Ibadan	Protestant	25	24	0.0077	1	n.s.
	Catholic	15	15			
Nsukka	Protestant	43	19	5.4935	1	*
	Catholic	42	42			
Communication group (Ibadan)	Protestant	29	34	5.8443	1	*
	Catholic	4	19			
Ife	Protestant	14	12	0.4532	1	n.s.
	Catholic	1	2			
Total				12.6640	6	*

<sup>1</sup> Abbreviations: n.s.—not significant; \*—less than 0.05.

*Yeasaying and autonomy correlated with father's occupation.* In the Nigerian samples, there was no consistent association between yeasaying and having a father who was either a farmer or belonged to some higher occupation. In four of the five samples, however, students with farmer-fathers were significantly lower on autonomy (see Table 3). Although in the Nsukka sample the trend was reversed, it was far from significant. There were no significant associations between either autonomy or yeasaying and father's occupation in the other samples.

*Yeasaying and autonomy correlated with number of siblings.* Although there was an association between yeasaying and a large number of siblings in three of the Nigerian samples,<sup>12</sup> the relationship was in the opposite direction for the other two samples. This made the results inconclusive. The results from the other samples were also mixed. At Gwelo, there was a significant association between autonomy and a large number of siblings.<sup>13</sup> At the Ateneo, there

<sup>12</sup> Significant at the 0.01 level for the Nsukka sample.

<sup>13</sup> Probability less than 0.01.

Table 3

Nigerian student subjects classified by sample and father's occupation, cross-classified by attitude content of autonomy scale.

Sample	Father's occupation	Attitude content		Chi square	Degree of freedom	Significance <sup>1</sup>
		Autonomous	Authoritarian			
Criterion group (Ibadan)	Farmer	7	10	3.8569	1	*
	Other	25	11			
Ibadan	Farmer	16	19	0.6082	1	n.s.
	Other	24	20			
Communication group (Ibadan)	Farmer	11	31	5.1512	1	*
	Other	22	22			
Ife	Farmer	7	11	3.1308	1	n.s.
	Other	8	3			
			Total	12.7471	4	*
Nsukka	Farmer <sup>2</sup>	29	20	0.1830	1	n.s.
	Other	51	41			

<sup>1</sup> Abbreviations: n.s.—not significant; \*—less than 0.05.

<sup>2</sup> The trend of the preceding four samples is reversed here, the sample being more autonomous than authoritarian (see p. 00).

existed a negative relationship between yeasaying and having a large number of siblings.<sup>14</sup>

*Yeasaying and autonomy correlated with birth order, age, and sex.* Birth order and age revealed no consistent trends for the Nigerian samples. At the Ateneo, on the other hand, first-born students tended to be yeasayers.<sup>15</sup>

As mentioned earlier, an insufficient number of female subjects made it impossible to test for differences between the sexes on autonomy in most of the samples. Sex did make a difference, however, in the only university where there were enough women in the sample for a test to be conducted; at Cape-town, men scored significantly higher on autonomy than women.<sup>16</sup>

### Discussion

In sum, significant relationships were found to exist between autonomy and the social-background characteristics of religion, father's occupation, and sex. On the other hand, there were no consistent relationships between yeasaying and the same variables. This supports the presumption that the previous findings with the total autonomy scale were in fact correlations with the content of the scale rather than with agreement set.

<sup>14</sup> Probability less than 0.01.

<sup>15</sup> Probability less than 0.05.

<sup>16</sup> Probability less than 0.01.

Summarizing previous research, Christie and Cook (1958) reported that yeasaying was more significantly prevalent among freshmen than upperclassmen. They suggested that the values of freshmen might still be changing and that there might be a conflict between the values of college and the more conservative values of the home (1958: 175). This may explain the finding in the previous study (Hare and Hare 1968: [this volume]) that the very young among the students with a European background at Capetown and among Filipino students scored lower on autonomy than those who were older.

The negative correlations between yeasaying and both intelligence and years of education reported by Christie and Cook (1958: 176) were not tested directly in this research. However, both their observation that Negro college students had higher scores on authoritarianism than White college students (1958: 187), and the evidence presented by Hare (1960) that Negro women are more likely to agree with items having authoritarian content, receive some support in this study. In Table 1, the means for the minus items, which represent agreement with authoritarian values, are higher for students with an African background than for students with a European or American background at Haverford and Capetown. Considered in the light of the fact that the means for two nationality samples, Gwelo and the Ateneo, with differing levels of socio-economic development, are both high,<sup>17</sup> previously reported differences between Negroes and Whites in the United States may represent not only differences in the level of socio-economic development but cultural differences as well.

### *Summary*

In an analysis of the plus and minus items in a balanced autonomy scale for samples of university students from the United States, Africa, and the Philippines, the minus or authoritarian items were found to have greater variance and higher reliability than the plus items; they thus contributed more to the total score for the scale.

Students from the more economically advanced countries achieved higher autonomy scores, with the exception of students from the Philippines, where dependence on older persons and peers appears to be highly valued. Within nationality groups, men had higher scores than women on the total scale, Protestants scored higher than Catholics, and students with farmer-fathers scored lower than those who had fathers with higher-status occupations.

When the samples were divided into autonomous-authoritarian and yeasayers-naysayers sets, the variables of sex, religion, and father's occupation continued to be associated with attitude content but not with agreement set. This indicates that the balanced scale is predominantly a measure of attitude content.

<sup>17</sup> The Gwelo sample had the highest mean.



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