## D. SOCIAL SCIENCES

## I. AN EXPERIMENTAL TEST OF INTELLECTUAL HONESTY <br> G. F. Miller <br> University of Oklahoma

Two purposes were followed in this experiment: 1. To illustrate a method of determining one particular moral trait. 2. To discover as many facts as possible within the limited scope of the experiment about the response of students in a situation involving moral conduct.

## Material and Procedure

Two classes of university students, designated in this description as Group A and Group B were used as subjects. Group A consisted of 48 individuals distributed in academic rank as follows: 9 seniors, 3 juniors, 18 sophomores, 15 freshmen, and 3 unclassified or whose rank was not known. There were 19 men and 29 women in the group. Group B was composed of 25 students: of whom 2 were graduates, 5 seniors, 6 juniors, 4 sophomores, 1 freshman, and 7 unclassified or of unknown rank. There were 6 men and 19 women in this group.

One group, when the tests were made, was attending the second semester of the year 1925-26; the other group was attending a summer session. The two were in different universities. The students of the summer session were older and of higher academic rank, for the most part than those of the other group.

Both groups were given the same course, by the same instructor, and with the aid of the same textbook. Both were given the same examinations, and the same directions about writing the tests and checking the marking of them. Altho the success oi the experiment did not depend on keeping the two groups under the same conditions, the situations for the two were made as uniform as possible in order to secure what comparison was possible.

Three objective tests were used in securing the data of this experiment. The first was a preliminary test, and was used to accustom the students to the procedure. The questions of this test which the students did not mark correctly were checked by the instructor, and the score, found by subtracting those checked from the total number, was recorded at the top of each paper. At the next meeting of the class the "key" to the tests was written on the blackboard; and after the papers were re-
turned to the students, they were asked to compare the markings with the "key," and also to verify the scores written at the top ofeach paper. The students were told that if their marking did not agree with that on the papers, to record their scores in circles near the other scores , and to write any explanations they wished to make on the margin. The marking of the papers had been done carefully, so the students found very few, if any, mistakes. After the students had finished with the papers, they were returned to the instructor.

The second test followed the first after about 8 class periods. The wrong answers on the papers handed in were checked carefully as before, but the figures at the tops of the papers expressing the total scores were recorded correctly on only $1 / 2$ of the papers. On the other half they were deliberately changed so $1 / 2$ of the incorrectly recorded scores ( $1 / 4$ of the total) were raised a few points, and the other half were lowered a few points. The papers on which the correct and the incorrect scores had been written were so selected that each kind went ot alternate students. For example, if the first third, fifth, and the like, student received papers with the wrong scores, the second, fourth, sixth and the like student received papers with correct scores. P.y preventing adjacent students having papers which contained the wrong mark, danger of suspicion of what was being done was lessened. In returning the papers to the students the same directions used for the preliminary test were given: "Compare the marking of your paper with the 'key' on the blackboard. subtract the number wrong from the total, or count up the number right (all omitted had been checked as wrong to make the verification more simple), and if the mark you get does not agree with the one on the paper, put your mark at the top in a circle. Write any explanation you care to on the margin.' The papers were returned to the instructor after a few minutes as in the first test.

The third test was given after another interval of about 8 class periods, and was like the second, except the students whose papers contained the wrong scores before were given correct scores, and the other half received the papers with wrong marks. with $1 / 2$ of the wrong mark too high and $1 / 2$ too low. There was no indication, so far as the instructor could judge, at any time in either group that anyone suspected that anything unusual was being tried.

Data Obtained in an Experimental Test of Intellectual Honesty (See Explanations following this table)

Group A Raised Scores Lowered Scores Number Number Number Number Number Percent-Correct- Uncor- Respon- Correct- Uncor- age of ed rected sible ed rected Honesty
Total

| Group | 1 | 22 | 13 | 14 | 11 | 7.7 |
| :--- | :--- | ---: | :---: | ---: | :---: | :---: |
| Scnior | 0 | 5 | 2.5 | 2 | 2 | 0 |
| Junior | 0 | 2 | 2 | 1 | 0 | 0 |
| Sophomore | 1 | 7 | 4.2 | 6 | 4 | 23.8 |
| Freshman | 0 | 7 | 3.5 | 4 | 4 | 0 |
| Unclassi- |  |  |  |  |  |  |
| $\quad$ fied, etc. | 0 | 1 | 0.5 | 1 | 1 | 0 |
| Men | 0 | 10 | 5.5 | 5 | 4 | 0 |
| Women | 1 | 13 | 5.6 | 6 | 9 | 18 |

Group B

## Raised Scores

Lowered Scores
Number Number Number Number Number Percent-
Correct- Uncor- Respon- Correct- Uncor- age of ed rected sible ed rected Honesty
Total

| Group | 7 | 6 | 12 | 11 | 1 | 58.3 |
| :--- | :--- | :--- | :--- | :--- | :--- | :---: |
| Graduate | 1 | 0 | 1 | 1 | 0 | 100 |
| Senior | 1 | 0 | 1 | 4 | 0 | 100 |
| Janior | 1 | 2 | 3 | 3 | 0 | 33.3 |
| Sophomore | 1 | 1 | 2 | 2 | 0 | 50 |
| Freshman | 1 | 0 | 1 | 0 | 0 | 100 |
| Unclassi- |  |  |  |  |  |  |
| $\quad$ fied, etc., | 2 | 3 | 2.5 | 1 | 1 | 80 |
| Men | 3 | 1 | 4 | 2 | 0 | 75 |
| Women | 4 | 5 | 8.1 | 9 | 1 | 49.4 |

Explanation of the Table of Data
The figures in the two vertical columns on the left show the number of papers on which the true mark was "raised," and the number of such marks which were corrected and the numter uhcorrected by students. For example, in Group A in the horizontal column for the "Total Group" 1 "raised" paper was corrected and 22 were uncorrected. The two vertical columns under the heading "Lowered Scores" show for hte "Total Group" that 14 papers on which the marks had been lowered" were corrected by the students, and that 11 which had been "lowered" were uncorrected.

The figures in the verticle column headed "Number Responsible" were obtained as follows: It was assumed that the percentage of the students with "raised" marks who would notice the discrepancy, would be equal to the percentage of students with "lowered" marks who would notice it. (This is the only reasonable basis that seems possible with the information at hand.) For instance, if the scores of 20 students were too low, and 15 of them made the corrections; then of 20 students whose scores were too high, 15 noticed the error, and so were responsible for the correction, whether they made it or not. An illustration will show how this principle was applied in the table. The first numbers in the two columns under "Lowered Scores" are 14 (in the "Number Corrected" column), and 11 (in the "Number Uncorrected" column). Since 14 students whose marks were "lowered" corrected them, and 11 failed to correct them and presumably failed to notice the difference, $14 / 25$ of those 25 students tcok the trouble to verify the score. Now if $14 / 25$ of the students whose marks were "raised" saw that the scores were not right, 13 of the 23 at the tops of the first two columns noticed the wrong scores and were responsible for correcting them. So the frrst number in the column headed "Number Responsible" is 13.

The percentage of honesty was determined by dividing the number of "raised" scores corrected by the "number responsible." For example the 1 at the top of the "Raised Scores-Corrected" column divided by the 13 at the top of the "Raised Scores-Number Responsible" column gives $7.7 \%$, which stands it the top of the last column. Now if we assume that these 13 "responsible" persons were representative of the whole group of 48 , the $7.7 \%$ is an index of this one type of honesty for all.

## Interpretations of Data

1. Whatever worth this experiment may have belongs chiefly to the technique used. The data are based on too few data to warrant conclusions about the intellectual honesty of students in general. Many factors help to determine such responses as are considered in this report. Whether a student will be willing to correct a mistake to his own detriment may depend on whether his grade is high or low, on how much he needs the extra amount. c.ll whether he feels that he previously has been treated fairly in the course, on whether he thinks that other students are honest. and the like. Some might be more honest when it is question of only a few points than when they feel that they are making a big gain by getting a large number of undeserved points. Just as in financial dealings some will scorn taking a dime dishonestly, hut will take a thousand dollars which doesn't belong to them.

Others will steal small amounts, but not large. The technique of this experiment could be used to secure information on these various questions.
2. Regardless of the few cases involved, the superior honesty of Group B over Group A seems very certain. The former was composed of persons of greater maturity, as a rule, and contained more experienced teachers. The fact that the two groups belonged to different universities does not necessarily mean that a higher standard prevails among the students in the Group B university. A comparison to determine that point would have to be based on more homogeneous groups in the two institutions that were used:-for example, freshmen men in that arts and sciences college during the first semester.
3. The results point clearly to a certain lack of the particular kind of honesty investigated. In Group A of the 13 students who saw their marks were too high only 1 made a correction. in Group B the correspodning numbers were 12 and 7.
4. The data do not determine the guilt of any particular individual. If a given student did not correct his raised mark, it might very well have been because he did not notice the mistake. This method, however, makes it possible to obtain reliable data concerning an individual. By extending the experiment over a long period of time, and raising several scores of the individual in question and lowering an equal number (and for the sake of caution returning to him a number of papers correctly marked). the proportion of raised scores and lowered scores which he corrected could be found; and those data he could be judged.

