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## COOPERATIVE AND UNCOOPERATIVE SUBJECTS IN A LONGITUDINAL STUDY\*

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During the third follow-up in 1962, the Career Pattern Study (Super et al., 1957) subjects' participation in data collection was sought by first class and certified mail, by telephone calls, and by visits to their homes as described in the preceding paper (LoCascio, 1963). Of the 140 living subjects, 136 had received at least one letter requesting participation in the follow-up. All requests for participation by telephone and personal visits were in addition to and subsequent to the letter contacts. This paper reports on the differences between subjects who participated after mail requests and those who required a further, more personal contact.

### Methods

Cooperative and Uncooperative Subjects. The 86 subjects who participated in data collection after mail requests only were classified as cooperative. The 51 subjects who did not participate then were classified as uncooperative, including 4 subjects who refused to participate at all. Three subjects who may have failed to receive the mailed requests were excluded. Cooperative and uncooperative subjects were compared on the following variables.

Ability. A measure of general intellectual ability was avail-

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able: the Otis Quick-Scoring Gamma Test administered in the ninth grade.

Socioeconomic Status. Parental occupational level in the ninth grade was rated on the Hamburger revision of Warner's Occupational Scale (Hamburger, 1958), the judgments of two raters being pooled. The distributions of ratings were grouped, combining levels 1 through 3 (N=37), levels 4 and 5 (N=54), and the lowest levels 6 and 7 (N=46).

Career Achievement. Two measures of career achievement were available for most subjects: the occupational level of their current job and a classification of each subject as to whether he was employed in the type of work in which he intended to settle down. Current job level was rated on the revised Roe Scale (Moser, Dubin, & Shelsky, 1956) using pooled judgments of three raters. Students and those in military service were excluded. The distribution of ratings ranged over levels two through six: levels two and three were combined (N=34), leaving level four which included only the skilled occupations (N=27), and levels five and six (N=35).

For the second measure of career achievement, the subject's current job was compared to his statement of the type of work in which he intended to settle down. Subjects were classified as those who stated they did not know what type of work they wanted to settle down in (N=10), those who named a type of work desired but were in an unrelated job (N=33), and those who named the type of work they intended to settle down in and had a job of that type (N=89). Two judges independently rated a random sample of twenty-four subjects and obtained 96 per cent agreement.

Educational Achievement. Three measures of educational achievement were available: amount of formal education obtained by April, 1962, high school curriculum, and high school grade average.

Amount of formal education obtained was rated on a seven point scale (Heyde, 1959). For this analysis subjects were divided according to those with some formal education beyond high school (N=59) and others (N=75).

High school curricula were Regents' and Non-Regents' programs. The Regents' program is the more demanding, reflecting ability and aspiration. Only subjects who remained in high school until spring of the senior year were included in this analysis.

High school grade average, excluding Regents' examinations, was computed over all courses for all subjects who remained in high school until spring of the senior year.

Geographic Mobility. A measure of geographic mobility classified each subject's place of residence as Middletown and vicinity or elsewhere. Students and military personnel were excluded from this analysis.

Occupational Mobility. Occupational mobility was defined as the difference between the occupational levels of the subject and of his father. Occupational levels were rated according to the revised Roe Scale (Moser et al., 1956) using the pooled judgments of three raters. Subjects were divided into two groups: those whose occupational level was higher (N=34) and those whose occupational level was equal to or lower than (N=37) their father's level.

Adjustment. Adjustment was measured by the Rotter Incomplete Sentences Test administered during the third and latest follow-up.

Validity. The validity of reports was assessed by agreement of subject-designations of present job titles and duties with the designations given by employers, the procedure for which is described in a subsequent paper (Leibowitz et al., 1963).

### RESULTS

Chi square tests of independence and, where appropriate, point biserial correlations are given in Table 1. These, and inspection of the appropriate contingency tables, permit the following conclusions:

- 1) Cooperative subjects tended to be of higher intellectual ability as measured by the Otis.
- 2) More cooperative subjects had selected the more demanding and aspiring Regents' program in high school.
- 3) Cooperative subjects tended to have higher high school grade averages.
- 4) More cooperative subjects had obtained formal education beyond high school. Although the chi square test was made on a four cell contingency table, the data were also plotted on a ten cell-table and a steady increase in the number of cooperative subjects is observed as amount of education increased. The expected frequencies, however, were too small to permit statistical analysis.
- 5) More cooperative subjects were employed at the upper occupational levels with the sharpest increase between levels three and four.
- 6) More cooperative subjects had moved away from their home town.

7) Cooperative subjects were not differentiated by: the level of parental employment, having set occupational goals and having at least partially implemented these goals, being employed in occupations at higher levels than their father, being of superior adjustment, or being more accurate in reporting their work histories.

More cooperative subjects aspired and achieved when judged by educational and occupational level criteria - but their current occupational behavior was not more goal directed. The data do not suggest that cooperative subjects are less goal directed but rather that they are not the only ones who tend to be. This suggests either that many who were goal directed at age twenty-five did not manifest such behavior earlier, or that the usual educational criteria are not adequate.

A problem is raised by an apparent inconsistency in the findings: more cooperative subjects were employed at the higher occupational levels, but despite the fact that more of them did not originate there, no more of them were found to be more highly placed than their fathers. The data suggest these findings to be due to a rather general upward mobility on the part of all the subjects, cooperative and uncooperative alike. Cooperative subjects moved up, to be sure, but they were not differentiated by such movement.

In conclusion, the cooperative subjects tended, in terms of educational and occupational level criteria, toward more striving, achieving, aspiring behaviors. They did not tend to come from any particular socioeconomic level, to be more occupationally goal directed, or to be better adjusted emotionally.

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Table 1

## COMPARISONS OF COOPERATIVE AND UNCOOPERATIVE SUBJECTS IN A LONGITUDINAL STUDY

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| Category                  | Variable                                                    | N   | r <sub>pb</sub> * | Chi <sup>2</sup> * | P    | df |
|---------------------------|-------------------------------------------------------------|-----|-------------------|--------------------|------|----|
| Ability                   | Otis Quick Scoring Gamma C: 9th Grade                       | 135 | .23               | -                  | .025 | -  |
| Socioeconomic Status      | Parental Occupational Level in 9th Grade                    | 137 | -                 | 2.09               | NS   | 2  |
| Achievement - Career      | Current Occupational Level                                  | 97  | -                 | 7.15               | .05  | 2  |
|                           | Current Occupational Goals                                  | 132 | -                 | 1.14               | NS   | 2  |
| Achievement - Educational | Educational Level Attained                                  | 134 | -                 | 8.70               | .005 | 1  |
|                           | High School Curriculum                                      | 103 | -                 | 12.58              | .001 | 1  |
|                           | High School Grade Average                                   | 103 | .16               | -                  | .05  | -  |
| Mobility - Geographic     | Current Residence                                           | 97  | -                 | 7.07               | .01  | 1  |
| Mobility                  | Discrepancy between Father's and Own Occupational Levels    | 71  | -                 | 1.05               | NS   | 1  |
| Adjustment                | Rotter Incomplete Sentences Test: Current                   | 130 | .03               | -                  | NS   | -  |
| Validity                  | Agreement between Subjects' and Employers' Job Descriptions | 78  | -                 | 2.25               | NS   | 1  |

\* All computations were carried out to fourth decimal.

Table 1 for preliminary report of U.S. Office of Education Cooperative Research Project No. 1393. Presented at meeting of American Psychological Association, Philadelphia, August 30, 1963.