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EDUCATIONAL ORIENTATIONS AND PARENTAL ENCOURAGEMENT--AN INTERVENING OR AN INDEPENDENT VARIABLE.

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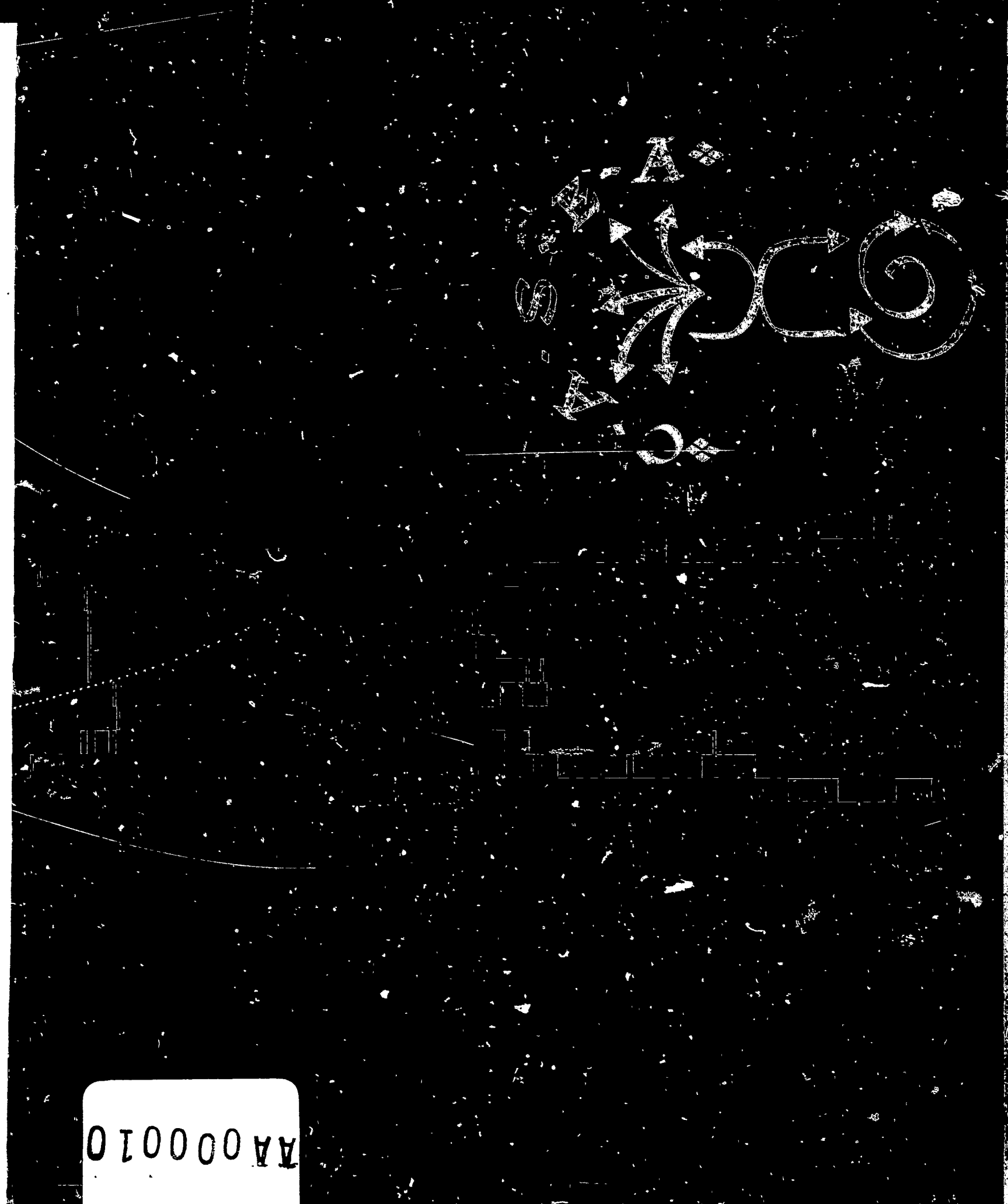
TWO MODELS OF THE INTERACTION OF PARENTAL ENCOURAGEMENT AND EDUCATIONAL EXPECTATIONS WERE EVALUATED IN COMPARISON WITH DATA GATHERED FROM A SURVEY. PARENTAL ENCOURAGEMENT WAS DEFINED AS AN OVERT ATTEMPT BY PARENTS TO INFLUENCE THEIR SON TO GO TO COLLEGE. ONE MODEL REPRESENTED PARENTAL ENCOURAGEMENT AS AN INTERVENING VARIABLE BETWEEN EDUCATIONAL EXPECTATIONS AND THE FACTORS OF EDUCATION OF FATHER, OCCUPATION OF FATHER, AND EDUCATION OF MOTHER. IN THE SECOND MODEL, PARENTAL ENCOURAGEMENT AND THE OTHER THREE FACTORS WERE DEPICTED AS INDEPENDENT VARIABLES INTERACTING WITH EDUCATIONAL EXPECTATIONS. A QUESTIONNAIRE WAS USED TO GATHER DATA FROM 6,000 SOPHOMORE STUDENTS IN PUBLIC AND PAROCHIAL SECONDARY SCHOOLS IN SIX MIDDLE-SIZE PENNSYLVANIA CITIES. THE HOLLINGSHEAD SEVEN CATEGORY OCCUPATIONAL RATING SCALE WAS USED TO MEASURE OCCUPATION OF FATHER AND THE HOLLINGSHEAD SEVEN CATEGORY EDUCATIONAL RATING SCALE WAS USED TO MEASURE EDUCATION OF FATHER AND EDUCATION OF MOTHER. STATISTICAL ANALYSIS WAS USED TO ESTABLISH THE NECESSARY FACTORS IN THE MODELS. A CRITICAL TEST WAS THEN MADE FOR AN INTERVENING VARIABLE. RESULTS OF THE TEST WERE NOT CONSIDERED TO ADEQUATELY ESTABLISH PARENTAL ENCOURAGEMENT AS AN INTERVENING VARIABLE. TO ACCOUNT FOR THE DISCREPANCIES BETWEEN THIS STUDY AND EARLIER STUDIES, SEVERAL ASSUMPTIONS WERE MADE THAT LED TO THE CONCLUSION THAT PARENTAL ENCOURAGEMENT ACTS AS AN INDEPENDENT VARIABLE. A RELATED REPORT IS AA 000 007. THIS PAPER WAS PRESENTED TO THE EASTERN SOCIOLOGICAL SOCIETY ANNUAL MEETING, APRIL 15-17, 1966. (AL)



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EDUCATIONAL ORIENTATIONS AND PARENTAL ENCOURAGEMENT: AN INTERVENING OR AN INDEPENDENT VARIABLE?

by

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ADOLESCENT EDUCATIONAL ORIENTATIONS AND PARENTAL EDUCATIONAL ENCOURAGEMENT: AN INTERVENING OR AN INDEPENDENT VARIABLE?

by

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INTRODUCTION

Since the publication of Kahl's "Educational and Occupational Aspirations of Common Man Boys," the variable of parental educational pressure, urgings, stress, or encouragement has assumed both theoretical and empirical importance in the research on factors associated with potential and actual adolescent vertical social mobility. Defining parental pressure as "a clear and overt attempt by either or both parents to influence their son to go to college,"[1] Kahl concluded that:

> if the parents were pushing toward college, in eight out of nine cases the boy responded appropriately, but if the parents were indifferent about college, in eleven out of fifteen cases the boy was uninterested.[2]

In a study published subsequent to Kahl's and concerned not with the educational but with the occupational orientations of adolescents, Simpson, using parental occupational advice to enter high ranking professional or executive positions as an indicator of parental pressure, noted that parental pressure:

> is strongly associated with mobility aspirations among working-class boys, and also with ambition among middle-class boys. Indeed, parental advice is a much better predictor of high ambition than is the boy's social class.[3]

Perhaps one of the most empirically definitive investigations of parental stress or encouragement is that of Bordua's "Educational Aspirations and Parental Stress on College."[4] The variable of parental stress was operationalized by asking each respondent:

Do your parents want you to go to college?

1. Yes, they stress it a lot.
2. Yes, they stress it somewhat.
3. Yes, but they seldom mention it.
4. No, they don't care one way or the other.
5. No, they would rather I didn't go.

On the basis of the analysis of responses from some 1500 Massachusetts 9th - 12th graders, Bordua reported that "parental stress is positively and linearly related to college plans . . ."[5] Finding the expected positive association between college plans and social status, as measured by father's occupation, and also a positive association between parental stress and social status, Bordua proceeded to introduce parental stress as a control variable in the relation between college plans and status. On the basis of a first order Pearsonian partial r, he concluded that:

> When the parental stress variable is introduced as a control the relationship of occupational level to college plans is reduced from a zero order r of .36 to a partial r of .19. The corresponding values for the parental stress variable before and after controlling occupational level are .67 and .62 -- scarcely any reduction at all. /Thus/... it is reasonable to state that social status differences in college plans are considerably but not entirely accounted for by associated differences in parental stress on college whereas the reverse is not true. Parental stress relates about equally well to college plans whether or not occupation is controlled.[6]

The theoretical status of this variable, which we shall henceforth refer to as parental educational encouragement, however, is not made clear in the literature. Bordua's statistical data would indicate that parental encouragement is an intervening variable, although he is never explicit on this point. Kahl's comments in his paper in the Harvard Educational Review are consistent with this interpretation. He writes:

> Everybody knows that parents influence their children. Yet the processes by which that influence is transmitted are perhaps worthy of study. The remainder of this article will summarize that part of the extensive case material which throws light on the relationship between parental pressure and son's [educational] aspiration.[7]

If it is assumed that these writers assign to parental encouragement the status of an intervening variable, the question which then arises, particularly with respect to Bordua's data, is whether the original zero order association between college plans and status is, in Zeisel's terms, spurious or true.[8] Applying Zeisel's criterion of reversibility of relationship between the intervening and the independent variable, the conclusion is that the original zero order association is a true one, not a spurious one. Certainly, it is not reasonable to argue that

social status ⇐ - - - - - ⇒ parental encouragement - - - - - ⇒ college plans

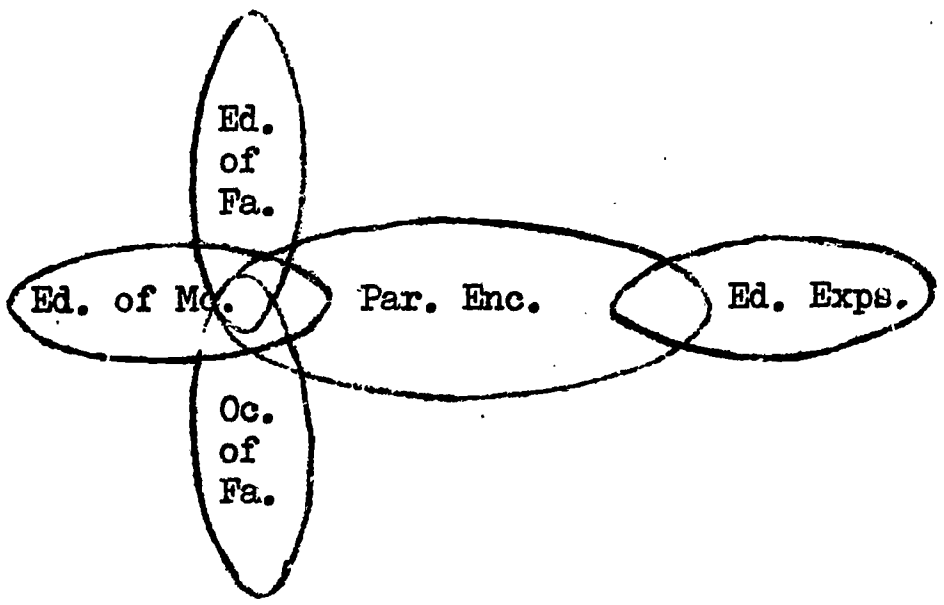
i.e., that parental encouragement can precede the status of the family. Thus, as Zeisel writes:

> The explaining factor [parental encouragement] confirms the original correlation as true only when this explaining factor is asymmetrically connected with the two variables to be explained.[9]

In sum, then, if parental encouragement is, in point of fact, an intervening variable, it helps explain <u>why</u> there is a correlation between educational plans and social status, i.e., because, in part, parents of higher status provide more encouragement for their children to go to college than do parents of lower status.

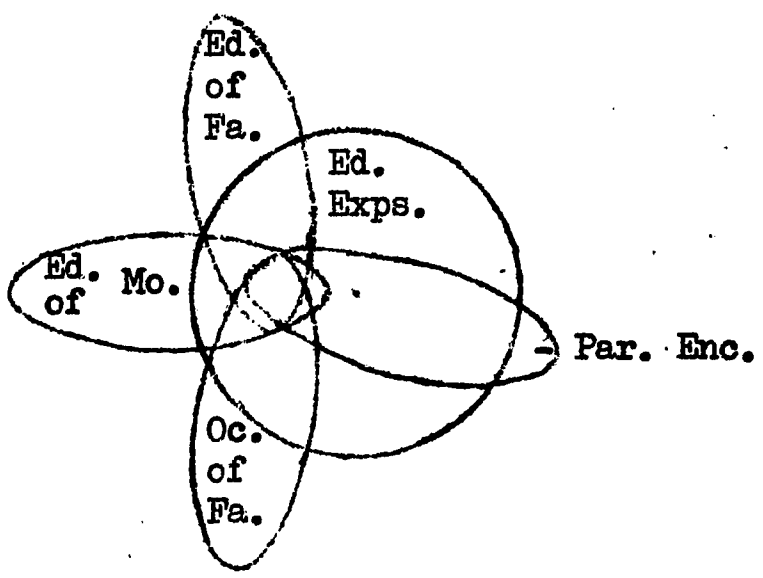
Representing diagrammatically parental encouragement as a variable which intervenes between selected status determinants and educational plans, we would have:

MODEL I: PARENTAL ENCOURAGEMENT AS AN INTERVENING VARIABLE



A recent study completed by the senior author casts serious doubt, however, on this model. What this study shows is that parental encouragement is not an intervening variable but an independent variable, a determinant in its own right of educational orientations. Diagrammatically, the model which is proposed herein appears as:

MODEL II: PARENTAL ENCOURAGEMENT AS AN INDEPENDENT VARIABLE



The remainder of this paper, therefore, represents an effort to evaluate each of these two models with the available data and to judge which of the two models the data best fit.

THE STUDY DESIGN AND THE VARIABLES

A precoded questionnaire was administered in 1963 to the 6000 students enrolled as sophomores in all public and parochial secondary schools in six middle-size (population 50,000 to 100,000) Pennsylvania cities. The following analyses are based on the data from 94% of all male students surveyed (N = 2852).

The dependent variable, educational expectations (the realistic dimension of an educational career orientation as opposed to an aspiration which is conceived of as the idealistic dimension) was measured with this item:[10]

> CONSIDERING your abilities, grades, financial resources, etc., how far do you actually EXPECT TO go in school?
>
> 1. ___ 10th or 11th grade
> 2. ___ Graduate from high school
> 3. ___ Trade, technical, or business school
> 4. ___ Nursing school
> 5. ___ Two years of college
> 6. ___ Four years of college
> 7. ___ Graduate or professional school

Three of the more commonly employed independent status determinants of educational expectations were used: occupation of the father, measured with the Hollingshead Seven Category Occupational Rating Scale from his Two Factor Index,[11] education of the father, and education of the mother, both measured with the Hollingshead Seven Category Educational Rating Scale. In order to ensure statistically reliable cell entries, most of the tables appear with each of these three variables dichotomized, occupation into White and Blue Collar, education into 12 or more years and 11 or less years.

Parental educational encouragement was measured by having each subject respond to the following item, once for each parent:

Which ONE of the following statements is most true about continuing your education after high school?

1. ___ My father /mother/ never urge me to continue my education
2. ___ My father /mother/ sometimes urge me to continue my education
3. ___ My father /mother/ often urge me to continue my education
4. ___ My father /mother/ constantly urge me to continue my education

Three levels of parental encouragement have been used: (1) Low -- when the respondent reported that both parents "never" or "sometimes" urge him to continue his education; (2) High -- when the respondent reported that both parents "often" or "constantly" urge him to continue his education; and (3) Moderate -- when the respondent reported "never" or "sometimes" for one parent and "often" or "constantly" for the other.

THE DATA

Fundamental Relationships

Prior to testing the goodness of fit of the data to either Model I or Model II, it is necessary to establish the following statistical relationships.

A. That each of the independent variables, i.e., occupation, father's education, and mother's education, is associated with the dependent variable, i.e., educational expectations.

B. That each of the independent variables is associated with the variable of prime concern, parental encouragement.

C. That the dependent variable, educational expectations, is associated with the variable of prime concern, parental encouragement.

A. Educational Expectations and Occupation, Education of Father and Education of Mother

Tables 1, 2, and 3 display the zero order associations between educational expectations and each of the three independent variables. In Table 1

- - - - - - - - - - - - - - -

Tables 1, 2 & 3 about here

- - - - - - - - - - - - - - -

it can be seen that 57% of the R's whose father's have White Collar occupations report a college expectation contrasted with 26% whose father's have Blue Collar occupations. The degree of association as measured by the Goodman Kruskal[12] gamma is .509. In Table 2 it can be seen that when the father has 13 or more years of education, 66% of the R's report a college expectation as against 26% when the father has 11 years or less. Similar percentage differences exist for mother's education, as can be seen in Table 3. The gamma values for Tables 2 and 3 are .431 and .403, respectively.

Since these three predictor variables are known to be intercorrelated, a partialling analysis was undertaken to assess the contribution of each of the three variables with the effects of the other two controlled. The partialling method most appropriate for non-metric tabular data, Rosenberg's test factor standardization technique,[13] was employed. Tables 4, 5, and 6 display the data. A comparison of these tables with Tables 1, 2, and 3 reveals

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Tables 4, 5 & 6 about here

- - - - - - - - - - - - - - -

that although the percentage differences, and hence the degrees of association, are reduced, the second order gammas (occupation = .329, education of father = .245, education of mother = .231) are of sufficient magnitude to confirm the position of each of these variables as independent determinants of educational expectations.[14]

B. Parental Encouragement and Occupation, Education of Father and Education of Mother

Tables 7, 8 and 9 display the zero order associations of parental encouragement with each of the three status variables. That parental encouragement is associated with occupation can be seen in Table 7 where 64% of the R's whose fathers hold White Collar jobs report a high level of encouragement as opposed to 46% of the R's from Blue Collar families. The value of the zero order gamma is .351. Tables 8 and 9 depict the association of parental encouragement with father's and mother's education, respectively. Thus, 62% of the R's whose fathers have 12 or more years of education report a high level of encouragement versus 48% of the R's when the father has 11 years or less. And, 61% of the R's whose mothers have 12 or more years of education report a high level of encouragement as contrasted with 45% whose mothers never completed high school. The gamma values are .252 and .291, respectively.

Tables 7, 8 & 9 about here

Again, since occupation, education of father, and education of mother are intercorrelated, partialling operations were undertaken. The results are presented in Tables 10, 11 and 12. Controlling for the appropriate test factors reduced the association of parental encouragement with occupation by about 30% from a gamma of .351 to .246: with father's education by about 45%, from a gamma of .252 to a gamma of .139: and with mother's education by about 35%, from a gamma of .291 to a gamma of .189. The magnitude of these three

Tables 10, 11 & 12 about here

second order coefficients would seem sufficient to warrant the conclusion that while parental encouragement does not vary independently of any of the three variables, neither does any of the three account for much of the variance in the level of parental encouragement.

C. Educational Expectations and Parental Encouragement

Table 13 portrays the zero order association of educational expectations with parental encouragement. From an inspection of this table it can be seen

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Table 13 about here

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that 54% of the respondents under the condition of high encouragement express a college expectation as contrasted with 13% under the condition of low encouragement. The gamma value for this relationship is .587, indicating that parental encouragement is more strongly associated with the dependent variable than is any one of the three status variables. Because parental encouragement is not independent of occupation, father's or mother's education, even at the second order level, the effects of these three variables were partialed out and the third order association of parental encouragement with educational expectations was examined. The results can be seen in Table 14. It is evident

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Table 14 about here

---

that the partialing operation has not markedly reduced the predictive utility of this variable. Fifty percent of the R's under the high encouragement condition express a college expectation as opposed to 17% under the low encouragement condition. The value of gamma has been reduced by only 15%, from .587

to .497. The persistence of the strength of the association of this variable with educational expectations would seem, in large part, attributable to its low intercorrelation with the three status variables of occupation, father's education, and mother's education.

The Data and the Two Models

The critical test of Model I, the model which depicts parental encouragement as a variable that intervenes between, and therefore links, educational expectations with the status variables of parental occupation and/or parental education is direct and simple. Does a control for parental encouragement markedly reduce or eliminate the association between the dependent variable and any one or more of the three independent status variables? Because the status variables are intercorrelated, a comparison of zero and first order partials, i.e., educational expectation with, say occupation, and educational expectation with occupation, controlling for parental encouragement, would not be a rigorous test of Model I inasmuch as any possible <u>direct</u> linkage of the two uncontrolled status variables with the dependent variable could obscure or mask the hypothesized <u>indirect</u> linkage function of parental encouragement. The most rigorous test therefore, is a comparison of second order partials with third order partials, i.e., educational expectations and, say, occupation, controlling for father's and mother's education, contrasted with educational expectations and occupation, controlling for father's and mother's education <u>and</u> parental encouragement.

Tables 15, 16 and 17 present the appropriate data. A visual comparison

Tables 15, 16 & 17 about here

of the appropriate second and third order tables reveals that introducing parental encouragement as the third control variable makes relatively little

difference in the percentage of R's expressing a college expectation under each of the two levels of the individual variables, certainly not enough difference to conclusively establish parental encouragement as an intervening variable. A more precise idea of the effect of introducing parental encouragement as a third control variable can be seen by inspecting the differences between the second and third order gammas as arrayed in Table 18.

Table 18 about here

On the basis of this evidence we are thus led to reject Model I and to adopt, tentatively at least, Model II, that is, to consider parental educational encouragement not as an intervening but as an independent variable. Furthermore, according to the data of this study, parental encouragement alone explains more variance in educational expectations than does any one or even all of the three status variables of occupation, education of the father, and education of the mother.

SUMMARY AND DISCUSSION

Several previous studies of adolescent educational orientations have provided evidence suggesting that parental educational pressure, stress, or encouragement, defined after Kahl as "a clear and overt attempt by either or both parents to influence their son to go to college," is an intervening variable which facilitates an understanding of why there is a true correlation between specific independent status variables such as parental occupation or education and the dependent variable of adolescent career orientations.

After establishing the required associations between the dependent variable and the status variables of occupation, father's education, and mother's education, between the dependent variable and parental educational encouragement, and between the three status variables and parental encouragement, we proceeded to execute the critical test for an intervening variable, namely that a control for the hypothesized intervening variable markedly reduces the degree of association between the dependent variable and each of the independent variables. This critical test took the form of a comparison of third order gammas with second order gammas, e.g., educational expectations and occupation, with father's education, mother's education, and parental encouragement controlled, contrasted with educational expectations and occupation with only father's education and mother's education controlled. Although the control for this variable did result in some reduction of the third order vs. the second order gammas, the magnitude of the reduction was not considered sufficiently adequate to establish parental encouragement as an intervening variable.

We are thus confronted with the task of attempting to account for the discrepancies in the findings between this study and the earlier studies cited above, particularly the study conducted by Bordua.

Tentatively, some portion of this discrepancy may be a function of differences in methodology, specifically:

1. Different Samples: The sample for the present study consisted of 2852 10th grade males from six urban areas in Pennsylvania. Bordua's sample consisted of 1529 9 - 12th grade males and females from two urban areas in Massachusetts.

2. Different Measurements of the Dependent Variable: In the present study the dependent variable, educational expectations, was measured by permitting the respondent to select one educational level from among eight, ranging from "10th or 11th grade" through "Graduate or professional school." In all analyses, these data were treated in the original frequency form. Bordua's dependent variable was measured with the item "Do you plan to go to college?", and then permitting the responses "Yes-definitely," "Yes-perhaps," and "No." These data were not treated in frequency form in the analyses, but instead were converted into an index.

3. Different Measurements of "Intervening" Variable: See preceding text for exact wording of these two items.

4. Different Statistical Partialing Techniques: Bordua's finding of a 48% reduction in the association of the dependent with the independent variable when parental stress is controlled is based on the use of the Pearsonian partial r, although he acknowledges that "the data and measures do not meet the assumptions involved in the use of product-moment correlation."[15] The finding in the present study of an average 20% reduction in association between the dependent and independent variables when parental encouragement is controlled is based on the Goodman-Kruskal gamma, computed with frequencies derived by the Rosenberg test factor standardization technique. Both procedures are designed for and consequently are consistent with the assumptions of non-metric, non-normal data.

We shall assume that perhaps a major portion of the discrepancy between the findings of the present study and those of previous studies can be accounted for by these four differences. We shall further assume that the greatest portion of this discrepancy can be explained by item #4, i.e., by the use of the Pearsonian partial r on data which do not meet the necessary parametric assumptions as opposed to the use of the Goodman-Kruskal gamma and the Rosenberg test factor standardization technique on data which do meet the necessary assumptions for these non-parametric procedures. Accepting the second assumption as valid, we are then left to conclude that parental educational encouragement is not an intervening but an independent variable. And, whereas the conceptualization of parental educational encouragement as an intervening

variable permits us to account for its variation in terms of the structural variables of parental occupation and parental education, its conceptualization as an independent variable permits no such accounting for its source of variation. Considering the very strong association of parental encouragement with educational orientations (both this present study and Bordua report measures of association of approximately .6), it would seem that future research on the determinants of parental educational encouragement is warranted.

TABLE 1

PERCENT OF RESPONDENTS REPORTING SPECIFIED EDUCATIONAL EXPECTATIONS, BY OCCUPATION OF FATHER

(Zero Order Association)

Occupational Level	Educational Expectations (In Years) 16 or more	14	16 or less	N.R.	Total	N
White Collar[a]	57	19	23	1	100	1233
Blue Collar[b]	26	24	49	1	100	1619
Totals	39	22	38	1	100	2852

Gamma = .509

[a] Hollingshead Occupational categories 1 - 4

[b] Hollingshead Occupational categories 5 - 7

TABLE 2

PERCENT OF RESPONDENTS REPORTING SPECIFIED EDUCATIONAL EXPECTATIONS, BY EDUCATION OF FATHER

(Zero Order Association)

Educational Level	Educational Expectations (In Years) 16 or more	14	12 or less	N.R.	Total	N
Partial College[a] or more	66	19	15	0	100	563
High School Grad.[b]	43	23	34	0	100	942
Partial High School or less[c]	26	24	49	1	100	1095
No Response	22	21	54	3	100	252
Totals	39	23	38	1	101	2852

Gamma = .431[d]

[a]Hollingshead Educational categories 1, 2, and 3

[b]Hollingshead Educational category 4

[c]Hollingshead Educational categories 5, 6, and 7

[d]Gamma computed with education of father as a dichotomy, i.e., "High School Graduate or more" versus "Partial High School or less." All gamma values reported in the paper have been computed with the independent variable divided into two levels so that statistically reliable cell entries can be assured. In all cases the No Response categories were excluded in the computation. The use of two rather than three or more levels of a variable results in gamma values of slightly greater magnitude, e.g., gamma for educational expectations and father's education when the latter is two levels is .431; when the latter is three levels the gamma value is .430.

TABLE 3

PERCENT OF RESPONDENTS REPORTING SPECIFIED EDUCATIONAL EXPECTATIONS, BY EDUCATION OF MOTHER

(Zero Order Association)

Educational Level	Educational Expectations (In Years) 16 or more	14	12 or less	N.R.	Total	N
Partial College or more	66	17	16	1	100	427
High School Grad.	43	24	33	1	101	1257
Partial High School or less	26	22	50	2	100	1015
No Response	22	21	54	3	100	153
Totals	39	22	38	1	100	2852

Gamma = .403[a]

[a]Computed with education of mother as a dichotomy, i.e., High School Graduate or more education versus Partial High School or less.

TABLE 4

PERCENT OF RESPONDENTS REPORTING SPECIFIED EDUCATIONAL EXPECTATIONS, BY OCCUPATION OF FATHER, WITH EDUCATION OF FATHER AND EDUCATION OF MOTHER CONTROLLED

(Second Order Association)

Occupational Level	Educational Expectations (In Years)				Total	N
	16 or more	14	12 or less	N.R.		
White Collar	49	21	29	1	100	1233
Blue Collar	30	25	45	1	101	1619
Totals	38	23	38	1	100	2852

Gamma = .3289

TABLE 5

PERCENT OF RESPONDENTS REPORTING SPECIFIED EDUCATIONAL EXPECTATIONS BY EDUCATION OF FATHER, WITH OCCUPATION OF FATHER AND EDUCATION OF MOTHER CONTROLLED

(Second Order Association)

Educational Level	Educational Expectations (In Years) 16 or more	14	12 or less	N.R.	Total	N
Partial College or more	52	25	22	1	100	563
High School Grad.	41	22	37	1	101	942
Partial High School or less	32	24	44	1	101	1095
No Response	27	21	49	3	100	252
Totals	39	22	38	1	100	2852

Gamma = .245[a]

[a]Gamma computed with education of father as a dichotomy

TABLE 6

PERCENT OF RESPONDENTS REPORTING SPECIFIED EDUCATIONAL EXPECTATIONS, BY EDUCATION OF MOTHER, WITH OCCUPATION OF FATHER AND EDUCATION OF FATHER CONTROLLED

(Second Order Association)

Educational Level	Educational Expectations (In Years) 16 or more	14	12 or less	N.R.	Total	N
Partial College or more	55	21	23	1	100	427
High School Grad.	40	24	35	1	100	1257
Partial High School or less	32	22	45	1	100	1015
No Response	32	18	49	1	100	153
Totals	39	22	38	1	100	2852

Gamma = .231[a]

[a]Gamma computed with education of father as a dichotomy

TABLE 7

PERCENT OF RESPONDENTS REPORTING SPECIFIED LEVELS OF PARENTAL EDUCATIONAL ENCOURAGEMENT, BY OCCUPATION OF FATHER

(Zero Order Association)

Occupational Level	Parental Encouragement				Total	N
	High	Medium	Low	N.R.		
White Collar	64	18	14	4	100	1233
Blue Collar	46	20	29	5	100	1619
Totals	54	19	22	5	100	2852

Gamma = .351

TABLE 8

PERCENT OF RESPONDENTS REPORTING SPECIFIED LEVELS OF PARENTAL EDUCATIONAL ENCOURAGEMENT, BY EDUCATION OF FATHER

(Zero Order Association)

Educational Level	Parental Encouragement				Total	N
	High	Medium	Low	N.R.		
High School Grad. or more	62	18	18	2	100	1505
Partial High School or less	48	21	27	4	100	1095
No Response	35	17	32	16	100	252
Totals	54	19	22	5	100	2852

Gamma = .252

TABLE 9

PERCENT OF RESPONDENTS REPORTING SPECIFIED LEVELS OF PARENTAL EDUCATIONAL ENCOURAGEMENT, BY EDUCATION OF MOTHER

(Zero Order Association)

Educational Level	Parental Encouragement				Total	N
	High	Medium	Low	N.R.		
High School Grad. or more	61	18	18	3	100	1684
Partial High School or less	45	22	28	4	99	1015
No Response	37	12	36	14	99	153
Totals	54	19	22	4	99	2852

Gamma = .291

TABLE 10

PERCENT OF RESPONDENTS REPORTING SPECIFIED LEVELS OF PARENTAL EDUCATIONAL ENCOURAGEMENT, BY OCCUPATION OF FATHER, WITH EDUCATION OF FATHER AND EDUCATION OF MOTHER CONTROLLED

(Second Order Association)

Occupational Level	Parental Encouragement				Total	N
	High	Medium	Low	N.R.		
White Collare	61	19	15	4	99	1233
Blue Collar	49	19	27	4	99	1619
Totals	54	19	22	4	99	2852

Gamma = .246

TABLE 11

PERCENT OF RESPONDENTS REPORTING SPECIFIED LEVELS OF PARENTAL EDUCATIONAL ENCOURAGEMENT, BY EDUCATION OF FATHER, WITH OCCUPATION OF FATHER AND EDUCATION OF MOTHER CONTROLLED

(Second Order Association)

Educational Level	Parental Encouragement				Total	N
	High	Medium	Low	N.R.		
High School Grad. or more	59	18	20	3	100	1505
Partial High School or less	50	21	25	4	100	1095
No Response	40	19	25	16	100	252
Totals	54	19	22	5	100	2852

Gamma = .139

TABLE 12

PERCENT OF RESPONDENTS REPORTING SPECIFIED LEVELS OF PARENTAL EDUCATIONAL ENCOURAGEMENT, BY EDUCATION OF MOTHER, WITH OCCUPATION OF FATHER AND EDUCATION OF FATHER CONTROLLED

(Second Order Association)

Educational Level	Parental Encouragement				Total	N
	High	Medium	Low	N.R.		
High School Grad. or more	58	18	20	4	100	1684
Partial High School or less	48	22	26	4	100	1015
No Response	45	14	30	11	100	153
Totals	54	19	22	4	99	2852

Gamma = .189

TABLE 13

PERCENT OF RESPONDENTS REPORTING SPECIFIED EDUCATIONAL EXPECTATIONS, BY PARENTAL EDUCATIONAL ENCOURAGEMENT

(Zero Order Association)

Encouragement Level	Educational Expectations (In Years)				Total	N
	16 or more	14	12 or less	N.R.		
High	54	24	22	1	101	1544
Medium	31	28	41	1	101	546
Low	13	13	73	1	100	640
No Response	30	21	45	3	99	122
Totals	39	22	38	1	100	2852

Gamma = .587

TABLE 14

PERCENT OF RESPONDENTS REPORTING SPECIFIED EDUCATIONAL EXPECTATIONS BY PARENTAL ENCOURAGEMENT, WITH OCCUPATION OF FATHER, EDUCATION OF FATHER, AND EDUCATION OF MOTHER CONTROLLED

(Third Order Association)

Encouragement Level	Educational Expectations (In Years)				Total	N
	16 or more	14	12 or less	N.R.		
High	50	25	24	1	100	1544
Medium	32	28	39	1	100	546
Low	17	14	68	1	100	640
No Response	39	23	35	3	100	122
Totals	39	22	38	1	100	2852

Gamma = .497

TABLE 15

PERCENT OF RESPONDENTS REPORTING SPECIFIED EDUCATIONAL EXPECTATIONS BY OCCUPATION OF FATHER, WITH EDUCATION OF FATHER, EDUCATION OF MOTHER, AND PARENTAL ENCOURAGEMENT CONTROLLED

(Third Order Association)

Occupational Level	Educational Expectations (In Years) 16	14	12	N.R.	Total	N
White Collar	47	20	32	1	100	1233
Blue Collar	31	25	44	1	101	1619
Totals	39	22	38	1	100	2852

Gamma = .265

TABLE 16

PERCENT OF RESPONDENTS REPORTING SPECIFIED EDUCATIONAL EXPECTATIONS BY EDUCATION OF FATHER, WITH OCCUPATION OF FATHER, EDUCATION OF MOTHER, AND PARENTAL ENCOURAGEMENT CONTROLLED

(Third Order Association)

Educational Level	Educational Expectations (In Years) 16	14	12	N.R.	Total	N
High School Grad. or more	45	23	32	0	100	1509 ~~1490~~
Partial High School or less	32	24	43	1	100	1091
No Response	28	22	47	3	100	252
Totals	39	23	38	1	101	2852

Gamma = .227

TABLE 17

PERCENT OF RESPONDENTS REPORTING SPECIFIED EDUCATIONAL EXPECTATIONS BY EDUCATION OF MOTHER, WITH OCCUPATION OF FATHER, EDUCATION OF FATHER, AND PARENTAL ENCOURAGEMENT CONTROLLED

(Third Order Association)

Educational Level	Educational Expectations (In Years) 16	14	12	N.R.	Total	N
High School Grad. or more	42	23	34	1	100	1684
Partial High School or less	34	22	43	1	100	1015
No Response	32	19	48	1	100	153
Totals	39	22	38	1	100	2852

Gamma = .162

TABLE 18

THE EFFECTS OF CONTROLLING PARENTAL EDUCATIONAL ENCOURAGEMENT ON SPECIFIED RELATIONSHIPS

(Second and Third Order Associations, Dependent Variable is Educational Expectations)

(Gamma Values)

Independent Variable	Control Variables	Parental Encouragement		Difference	
		NOT Controlled (2nd Order)	Controlled (3rd Order)	Absolute 2nd-3rd	Percent 2nd/3rd
Occupation of the Father	Education of Mo. Education of Fa.	.329	.265	.064	80.55
Education of the Father	Education of Mo. Occup. of Fa.	.245	.227	.018	92.65
Education of the Mother	Education of Fa. Occup. of Fa.	.230	.162	.068	70.43

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1. Joseph A. Kahl, "Educational and Occupational Aspirations of 'Common Man' Boys," Harvard Educational Review, Summer 1953, pp. 186-203.

2. Joseph A. Kahl, The American Class Structure, New York: Holt, Rinehart & Winston, 1962, p. 288.

3. Richard L. Simpson, "Parental Influence, Anticipatory Socialization, and Social Mobility," American Sociological Review, August 1962, pp. 517-522.

4. David T. Bordua, "Educational Aspirations and Parental Stress on College," Social Forces, March 1960, pp. 262-269.

5. Ibid., p. 256.

6. Ibid., p. 268.

7. Kahl, Harvard Educational Review, p. 189.

8. Hans Zeisel, Say It With Figures, New York: Harper & Row, 1957, pp. 204-208.

9. Ibid., pp. 206-207.

10. Educational aspirations, the idealistic dimension of an educational career orientation were tapped with this item: "SUPPOSING you had the necessary abilities, grades, money, etc., how far would you really LIKE TO go in school?" The same seven response alternatives were offered for the aspiration item that were offered for the expectation item. The author is most grateful to Harold F. Goldsmith, currently with the Community Projects Section of NIMH for his suggestions and advice on the conceptual and operational formation of the aspiration and expectation items. A comparison of the proportion of the class of 1965 (males) who, as sophomores, stated that they actually expected to attend a four year college (39%) with the proportion of seniors from the class of 1964 (males) who, six months following graduation were actually attending college (35%) indicated that the item was eliciting rather valid responses.

11. August B. Hollingshead, The Two Factor Index of Social Position, New Haven: Yale, 1957 (mimeo.).

12. Leo A. Goodman and William H. Kruskal, "Measures of Association for Cross Classifications," Journal of the American Statistical Association, September 1954, pp. 732-764.

13. Morris Rosenberg, "Test Factor Standardization as a Method of Interpretation," Social Forces, October 1962, pp. 53-61. The computational steps involved in this technique are as follows:

    1. Compute the partial percentage tables, as in conventional survey analyses.

    2. Compute the proportion of the Grand N for the total table represented by the n in each partial table.

    3. Multiply the proportions obtained via Step #1 by the proportions obtained via Step #2.

    4. Add corresponding weighted proportions computed via Step #3 in all partial tables. This produces a table of proportions which would result if the distribution of the test variable(s) were the same in all categories of the independent variable as it is for the sample as a whole.

    5. Multiply the proportions obtained via Step #4 by the marginal n's for the various levels of the independent variable.

    6. Compute the n order measure of association on the resultant frequency distribution. This measure of association represents the degree of relationship between the independent and dependent variables with the effects of the test variable(s) held constant.

    For another application of this procedure, see William Erbe, "Social Involvement and Political Activity," American Sociological Review, April 1964, pp. 198-215.

14. Since the sample of students for this particular study consists of the entire universe of students in these six cities, no statistical tests of significance have been computed.

15. Bordua, op. cit., p. 268.