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Personality and Scholarship

The traits of able students at colleges productive of scholars are different from those of other able students.

Paul Heist, T. R. McConnell, Frank Matsler, Phoebe Williams

Objective studies of the product of the educational process in America's colleges and universities are relatively few. The report by Learned and Wood of a study of the "academic growth of the baccalaureate mind" is still the most comprehensive assessment of the output of higher education that has been published (*1*). Two decades ago they demonstrated amazing differences in achievement among the students attending the various colleges in a single state.

More recent landmarks are the studies by Knapp *et al.*, which showed that a relatively small number of higher institutions in the United States were much more productive of scientists and scholars than the great majority of colleges and universities. The index of institutional productivity devised by Knapp and Greenbaum was the number of students per thousand graduates from 1946 to 1951 who later received either (i) Ph.D. degrees, (ii) university fellowships, (iii) government fellowships, or (iv) private foundation fellowships exceeding $400 per year. Fifty institutions with the highest indices for male graduates and 13 with the highest indices for female graduates were designated as institutions of high productivity.

Knapp and Greenbaum suggested some reasons for the striking differences in educational productivity they discovered. Although they did not disregard the quality of the students attracted to the most productive colleges in attempting to explain the institution's records, they nevertheless put the greater emphasis on the institutions—the faculty, the objectives, and the intellectual atmosphere. In referring specifically to the exceptional productivity of a few small liberal arts colleges, they spoke of their "singular hospitality to intellectual values in general" and declared that "the climate of values sustained by the institutions elevated the scholar and intellectual to the position of 'culture hero' " (*2*).

While serving as a member of a planning committee for research on diversification of American higher education at the Center for the Study of Higher Education of the University of California, Berkeley, Darley shifted the explanation for differential productivity from the institution to the student when he said (*3*): "Without cynicism, one might state that the merit of certain institutions lies less in what they do to students than it does in the students to whom they do it."

Subsequently, a study by Holland (*4*) lent support to this hypothesis. After comparing certain characteristics of National Merit Scholarship winners and near-winners who attended colleges having "high" and "low" indices of productivity, he concluded that differential institutional productivity is a function of the concentration in certain institutions of exceptionally able students with high scholastic motivation. Holland, in another study, also found that the parents of National Merit Scholarship students who attended colleges which ranked high in productivity placed a high value on "learning how to enjoy life, and developing mind and intellectual abilities," while those whose children went to colleges which ranked lower placed less emphasis on intellectual goals (*5*).

In several research projects the Center for the Study of Higher Education has explored the hypothesis that particular colleges and groups or types of institutions are differentially selective, not only with respect to scholastic aptitude but also with respect to attitudes, values, and intellectual dispositions. The study reported here was devised to test the general hypothesis that highly productive institutions, by the criteria of Knapp and Greenbaum, are more attractive than less productive ones to National Merit Scholarship students with high scores on certain personality tests designed to measure attributes closely related to intellectual orientation and intellectual functioning.

The Sample

The population of students of high ability from which the sample for the study was drawn consisted of all the winners and a 10-percent sample of those who received certificates of merit (the near-winners) from the National Merit Scholarship Corporation in the

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spring of 1956. The longitudinal investigation of the 1956 sample has been conducted with the cooperation of the staff at the National Merit Scholarship Corporation, and the students in this sample were a part of the larger group used by J. L. Holland (*4*). In the latter part of the summer of 1956 the students, 956 in number, were invited to participate in one of the Center's investigations of the development of exceptional students during their college careers. Those who acquiesced were mailed packets containing tests and questionnaires on two occasions, the first immediately prior to college entrance and the second just before completion of the first year in college. Almost 90 percent (843 of the students who were invited to participate) returned their tests and questionnaires on both occasions.

The students who entered the Massachusetts Institute of Technology and the California Institute of Technology were omitted in the study under consideration. Of the remaining students, 216 males and 52 females enrolled in the highly productive institutions. The distribution of students among those institutions is shown in Table 1. The institutions are listed in the order of the Knapp and Greenbaum indices of productivity. It may be noted that about 70 percent of the 216 male students attended the ten most productive institutions. This enrollment represents about 25 percent of the more than 600 males in the total group of National Merit Scholarship students under study.

Table 1. Distribution of male and female National Merit Scholarship students among institutions ranked high in the production of scientists and scholars.

School	NMS students	
	No.	No. per 1000
Males		
Swarthmore	10	7
Harvard	64	5
Haverford	5	4
Oberlin	11	4
Reed	4	4
University of Chicago	8	3
Carleton	3	2
Princeton	21	2
Yale	23	2
Wesleyan	4	2
Knox	3	2
Cornell	22	2
Pomona	2	2
Grinnell	2	1
DePauw	3	1
Amherst	4	1
Williams	4	1
Johns Hopkins	4	*
University of the South	1	*
Columbia	4	*
Augustana (Ill.)	1	*
Brooklyn	1	*
Brown	4	*
University of Pennsylvania	3	*
Dartmouth	5	*
Total	216	
Females		
Swarthmore	7	6
Radcliffe	14	5
University of Chicago	5	3
Cornell	7	2
Bryn Mawr	2	1
Vassar	3	*
University of Pennsylvania	1	*
Mt. Holyoke	4	*
Smith	6	*
Grinnell	1	*
Barnard	2	*
Total	52	

* More than 0 but less than 1.

Because the sample comprised both scholarship winners and near-winners, it is important to note the proportions falling into the two subgroups. Of the 268 students, 36.4 percent of the men and 38.6 percent of the women had been awarded Certificates of Merit. Of greater concern is the matter of equivalence in ability of the winners and near-winners. Differences in scholastic aptitude between the two groups could invalidate a comparison of the differential characteristics of students in high and low institutions, since 71.8 percent of the male winners attended the high-productivity institutions in comparison with only 28.2 percent of the near-winners; for the males in the low-productivity institutions, the corresponding percentages are 38.6 percent and 61.4 percent, respectively. The higher percentages of winners in the high-productivity sample may be due in large part to the fact that the scholarships had permitted them a greater choice in the selection of schools.

Since measured aptitude was a criterion in selecting the scholarship winners, the combined mean scores (verbal plus mathematical) of both men and women on the Scholastic Aptitude Test were significantly higher in the case of the winners. However, with the exception of one personality scale—Complexity of Outlook—upon which female winners scored higher than near-winners, the difference in scholastic aptitude was the only significant one. The differences in aptitude between winners and near-winners and the differences in the percentages of winners (or near-winners) attending the high- and the low-productivity institutions produced different mean aptitude scores for the students attending schools in the two groups. Because of this, samples of males and females in the two productivity categories were matched on total Scholastic Aptitude Test scores (verbal and mathematical combined) by drawing students at random from the low-productivity institutions and pairing them with students from the high-productivity institutions. The mean aptitude scores of the four groups are presented in Table 2.

Table 2. Means and standard deviations (SD) on the total score (verbal and mathematical combined) of the Scholastic Aptitude Test for matched groups of male and female students attending institutions ranked high and low in production of scientists and scholars.

Rank of institution	Males (N = 50)		Females (N = 41)	
	$\bar{X}$	SD	$\bar{X}$	SD
High	138.78	5.8	139.2	8.6
Low	138.84	5.7	139.6	8.0

The matching resulted in groups whose mean scores were approximately halfway between the mean aptitude test scores of the total groups of males and females (N = 216 and 52) attending the high-productivity institutions and the total groups in the low-productivity institutions. A greater attenuation of the aptitude scores of male students in the higher ranking institutions suggests that this high-ability group (N = 216) is probably underrepresented in the matched sample, and indeed, proportionally more of the less capable students from the original high-productivity group do fall into this matched subgroup of 50 students.

There were, of course, other variables upon which students could have been matched for greater comparability of the groups. However, matching on more than one variable at a time would have resulted in groups too small for satisfactory comparison.

Available Data

Included in the first packet of material sent to the students, in the late summer of 1956, were a questionnaire covering biographical, socioeconomic, and attitudinal items, the Strong Vocational Interest Blank (SVIB), and an Omnibus Personality Inventory (OPI)

Table 3. Omnibus Personality Inventory means and standard deviations (in parentheses) for National Merit Scholarship males and females attending institutions of high productivity (HP) and low productivity (LP).

OPI scale	Males (N = 50)			Females (N = 41)		
	HP	LP	t	HP	LP	t
Schizophrenia*	12.14(7.6)	11.66(5.8)		9.73(5.4)	11.59(6.5)	
Hypomania*	16.80(4.8)	17.14(3.7)		14.68(3.2)	16.15(4.3)	
Social Introversion	22.92(8.3)	25.94(9.7)	2.29†	24.85(7.9)	26.93(8.5)	
Thinking Introversion	47.44(7.2)	46.06(7.8)		49.71(5.7)	46.27(8.8)	2.23†
Responsibility	41.64(6.4)	41.62(3.7)		43.71(3.0)	44.40(5.2)	
Complexity of Outlook	15.64(4.1)	13.96(3.3)	2.79‡	16.71(3.6)	14.90(3.5)	2.87‡
Originality	25.86(4.1)	24.16(4.4)	3.20‡	26.20(3.3)	25.68(3.7)	
Authoritarianism (F)	7.24(3.9)	9.02(3.7)	2.12†	5.28(2.7)	7.95(3.7)	3.35‡
Ego Strength	22.46(2.7)	21.92(2.8)		23.30(2.6)	21.76(2.6)	2.68‡
Authoritarianism (F4)	17.86(4.3)	18.96(7.1)		15.48(3.6)	17.51(4.1)	2.16†
Impulse Expression	19.88(8.2)	18.10(7.4)		17.25(6.0)	18.83(6.7)	

* Scales not corrected by K value. † $p < .05$. ‡ $p < .01$.

(*6*). The latter instrument was assembled particularly for this project and for other studies of students of superior ability. At the end of the spring term of their freshman year, the students were asked to respond to another questionnaire, composed chiefly of attitudinal items, and the Allport-Vernon-Lindzey Study of Values (AVL) (*7*). Additional biographical data, Scholastic Aptitude Test scores, and some pertinent information from the students' high school records were obtained through the cooperation of the National Merit Scholarship Corporation. The analyses for this report were limited to scores on three objective inventories: the Strong Vocational Interest Blank, the Omnibus Personality Inventory, and the Allport-Vernon-Lindzey Study of Values.

Hypotheses

The specific hypotheses concerning differences in characteristics between students in the high- and low-productivity institutions are given below. The content and "direction" of these hypotheses were derived from conclusions and implications in the studies by Knapp *et al.* (*2*, *8*), some general knowledge of the institutions in the high-productivity group, and some evidence on the academic adjustment and attainment of the more liberal, free-thinking, and nonauthoritarian student (*9*).

1) The students in the high-productivity institutions should have significantly higher mean scores than those in the low-productivity institutions on the following personality variables, all included as scales in the Omnibus Personality Inventory: Schizophrenia, Hypomania, Thinking Introversion, Originality, Complexity of Outlook, Ego Strength, and Impulse Expression.

2) The students in the high-productivity institutions should have significantly lower mean scores than those in the low-productivity schools on the following Omnibus Personality Inventory scales: Social Introversion, Responsibility, and Authoritarianism (both F and F4).

3) The students in the high-productivity schools should have significantly higher mean scores than those in the low-productivity colleges on the Theoretical and Aesthetic scales of the Allport-Vernon-Lindzey Study of Values and a significantly lower mean score on the Religious scale.

4) There should be significant differences between students in the high- and low-productivity schools in the prevalence of theoretical and applied patterns of responses on the Strong Vocational Interest Blank (*10*, *11*).

Results

Tables 3 and 4 present the means on the Omnibus Personality Inventory and AVL Study of Values scales, in addition to t values for all scales yielding differences significant at or beyond the .05 level. On the OPI, the male groups in the high- and the low-productivity institutions differed significantly on four scales, and on the AVL there were significant differences for two of the three traits tested. The males in the high-productivity group scored higher on the OPI scales of Complexity of Outlook and of Originality and lower on Social Introversion and Authoritarianism (F). On the AVL, the males in the high-productivity group scored higher on the Theoretical and Aesthetic scales and lower on the Religious scale.

The results for the females on these inventories were in general agreement with those for the males. The females in the high-productivity group also scored higher on the Aesthetic and lower on the Religious scales of the AVL (the difference on the Theoretical scale approached the .05 level). On the personality inventory the differences on the Complexity of Outlook and Authoritarianism (F) scales are again significant, and in the same direction as the results for the men. On a second scale measuring authoritarianism (F4) (*12*), the women in the high-productivity group had significantly lower scores than those in the other group. In addition, they scored higher on two other scales—Thinking Introversion and Ego Strength.

In the case of the male groups, the scale variances were homogeneous in all instances. In the case of the females, however, the variances on both the Authoritarianism (F) and the Thinking Introversion scales were significantly different at the .10 level. For the reader unacquainted with personality measurement it should also be added that the differences obtained must be interpreted with a concern both for the amount of the difference and the amount of the overlap of scores in the two distributions. However, where the differences are significant, a majority in one group receive scores quite unlike those of a majority in the second group.

One may conclude that the first two hypotheses are supported by the data for *both* sexes on only the Complexity of Outlook and the Authoritarianism (F) scales. For the males, the hypotheses are supported on the Originality and the Social Introversion scales. For the females, the differences on Thinking Introversion, Ego Strength, and Authoritarianism (F4) are in line with expectations. Except for the Theoretical scale, the third hypothesis is supported for both sexes. In a previous analysis of comparable data for *all* students (that is, before matching on Scholastic Aptitude Test scores), significant differences were found for both sexes on all the scales which yielded significant differences after matching, with the exception of the differences on Social Introversion.

Weissman's method of analyzing Vocational Interest Blank scores on a theoretical-applied dimension was validated only for the men's form on a

male sample (*10, 11*). Nevertheless, in line with the theory that the form for men can be used in counseling females of superior ability who have a strong career orientation (*13*), Weismann's technique of profile analysis was also used with the women in this study.

The Vocational Interest Blank profiles of the 100 males and 82 females were subjected to a "blind" analysis—that is, they were read, interpreted, and classified before the respective groupings by high- and low-productivity institutions were known. The assignment to categories in this method of profile analysis, in the great majority of cases, is readily determined by relatively objective criteria; interpretive judgment is infrequently involved. The assignments were made independently by two judges, and the two or three discrepancies resulting from the independent work were resolved through later discussion and agreement between the judges.

The frequencies for males and females in the various categories are presented in Table 5. Chi-square analysis was employed to test the hypothesis that the obtained distributions of the frequencies in the major categories differed from the distributions to be expected on the basis of chance. The chi-square values are 10.04 ($p < .01$) and 8.60 ($p < .02$) for the males and females, respectively. Thus, for both sexes, the number of individuals in the major categories is significantly different from the number expected on the basis of chance, a much larger number of students in the high-productivity groups falling in the A category. For both sexes the distinctive differences are in the A0 and A2 subcategories. For the males, the frequencies in the C category differ considerably, with five times as many individuals in the low- as in the high-productivity group. For the females, the second major difference is found in the B category, which contains almost twice as many individuals of the low- as of the high-productivity group. It is of interest to note the frequencies found in the subcategories under the general A and B classifications; they appear to shed some light on the meaning of these distributions. For example, the combined totals in the A0 and A2 categories for males and females in the high-productivity groups (20 in each case) as compared to similar totals in the low-productivity groups (7 in each case) are striking,

Table 4. Allport-Vernon-Lindzey Study of Values means and standard deviations (in parentheses) for National Merit Scholarship males and females attending institutions of high productivity (HP) and low productivity (LP).

AVL scale	Males (N = 50)			Females (N = 41)		
	HP	LP	t	HP	LP	t
Theoretical	48.66(9.7)	46.12(7.7)	1.71*	45.37(7.4)	43.00(8.4)	
Aesthetic	43.50(11.6)	36.20(9.3)	4.15†	49.98(8.7)	45.85(9.9)	2.50†
Religious	39.74(11.6)	46.14(10.3)	2.22*	42.51(8.5)	48.15(11.14)	2.23*

*$p < .05$. †$p < .01$.

especially since no such differences are found in the A3 category for either sex. The seemingly consistent direction of the small differences in the B4 and B5 categories for both sexes should also be noted. Certain other differences appear to be peculiar to one sex or the other and are probably related to differences in the orientation of men and women toward future occupations.

Discussion

That higher institutions are differentially selective with respect to general scholastic aptitude is well established, but relatively few studies have been made of the distribution of such student attributes as values, attitudes, and personality characteristics among particular institutions or groups of institutions. Holland, as noted above, showed that highly productive colleges drew National Merit Scholarship students with higher average Scholastic Aptitude Test scores than the less productive institutions. Holland has also reported the relationship of scores on the California Psychological Inventory and the choice of an institution of high rank on the Knapp-Goodrich and Knapp-Greenbaum indices of productivity. He concluded that "the choice of a high ranking institution is positively associated with a sense of well-being, psychological-mindedness (sensitivity to others), flexibility, good impression, non-stereotypy, and is negatively associated with socialization (propriety)" (*5*). However, he reported that most of the relationships were not found in more than one sample and that the correlations were in all cases small—the two highest were .28 for non-stereotypy and .21 for psychological-mindedness. In view of the fact that the students in schools of high and low productivity were matched on Scholastic Aptitude Test scores, this study supplies rather striking evidence of differential selectivity or attraction with respect to a number of personality characteristics. The pattern of differences in these characteristics is summarized below.

In previous research, scores on an instrument such as the Minnesota Multiphasic Personality Inventory (MMPI) have resulted in minimal or no differences among institutional groups. The general picture of mental health and emotional stability appears to be very similar for student bodies in different

Table 5. Numbers of National Merit Scholarship males and females, categorized by profile analysis of Strong Vocational Interest Blank, attending institutions of high productivity (HP) and low productivity (LP).

Category	Males (N = 50)		Females (N = 41)	
	HP	LP	HP	LP
A: Theoretical				
A0 (abstract)	6	0	11	3
A2 (scientific)	14	7	9	4
A3 (social)	3	3	10	11
Total	23	10	30	18
B: Applied—professional				
B1 (biological science)	5	1	0	4
B2 (technical)	3	12	2	2
B3 (welfare)	8	7	5	9
B4 (business)	4	8	0	5
B5 (verbal)	4	1	4	0
Total	24	29	11	20
C: Applied—technical	2	11	0	0
Reject	1	0	0	3

colleges, and, incidentally, quite normal. The results for these multi-institutional high- and low-productivity groups on the MMPI Schizophrenia and Hypomania scales are in line with these previous findings, and the lack of differences on the Impulse Expression scale—a measure of the general readiness to express impulses—may be considered supportive of the same finding. The scores on two other scales—Social Introversion and Ego Strength—both composed of items from the MMPI, also support the picture of mental health in the student bodies of schools of both groups. Though the difference on the Social Introversion scale is significant only for the males and on the Ego Strength scale only for the females, the direction of the differences on both scales is the same for both sexes. It can be inferred from content analysis and validity studies of these scales that there is more inner-directedness and social independence in individuals from the high-productivity institutions. This seems to be in line with what might be predicted from differences in other characteristics between students in the two kinds of institutions.

The other differences discovered can be viewed as reflecting an orientation favorable to learning and intellectual activity among those selecting high-productivity institutions. For example, whatever the "true" meaning of the Authoritarianism (F) scale—whether it indicates rigidity, conventionality, and so on, or whether (at the other extreme) it largely reflects educational and cultural sophistication or "response set"—the differences obtained, in conjunction with those obtained on the AVL Study of Values Religious scale, which assesses a degree of fundamentalism and dogmatism, make it possible to draw a fairly simple conclusion. The scores of students in the high-productivity institutions indicate more freedom and receptivity to learning, more objectivity, and less conservatism and authoritarianism.

The major components of the pattern of differences referred to as a positive orientation toward learning are further supported by the distributions across the Vocational Interest Blank categories presented in Table 5. The high-productivity colleges have a greater number of both males and females in the A, or theoretical, category, and particularly in the subcategories, A0 and A2 (abstract and scientific). These people may be described as possessing intellectual curiosity and a spirit of inquiry, as being concerned with ideas and theory, and as being disposed toward speculative and creative thought. In addition, interesting differences are found in the biological science (B1) category for the males and in the verbal (B5) category for the males and the females, but the number involved and the size of the differences are not sufficient to warrant supportive interpretations of the differences in intellectuality between the two groups.

In contrast, the frequencies in the low-productivity schools are concentrated more in the major applied-technical area (C) and in the technical (B2) and business (B4) subcategories for the males; for the females, almost twice as many individuals from the low- as from the high-productivity group are found in the broad applied-professional (B) category, in which the major differences are in the biological science (B1) and business (B4) subcategories. Thus, there is a greater concentration of students with theoretical and nontechnical Vocational Interest Blank patterns in the high-productivity institutions and of students with patterns in the applied, and especially in the technical, areas in the low-productivity schools.

The differences on the Aesthetic scale of the AVL Study of Values are consistent with the differences in the Vocational Interest Blank findings. Work at the Center for the Study of Higher Education has indicated that the Aesthetic scale is more closely related to serious intellectual and scholarly interests than is the Theoretical scale, although a high score on *both* scales is especially indicative of intrinsic intellectual interests, and possibly of a creative disposition (*14*). In the study under discussion, more than twice as many individuals of both sexes in the high-productivity institutions as in the low-productivity group are at least one standard deviation above the college-student mean on both of these scales.

Both male and female students in the high-productivity schools had significantly higher scores on the Complexity of Outlook scale. The established correlates of this scale indicate (*6*) that high scorers may be described as independent, critical, liberal, somewhat unconventional, interested in artistic things, tolerant of ambiguity, receptive to the new and the different, and potentially original and creative. The results on two additional scales supplement this picture. The males in the high-productivity schools score higher on the scale measuring a disposition toward originality, and the females in these schools score higher on the Thinking Introversion scale, which assesses the degree of preference for reflective thought, particularly of an abstract nature. The data round out the picture of intellectuality and potential creativity of the students in the highly productive institutions.

The colleges which are noted for the production of future scientists and scholars start with students who apparently have a considerably greater inclination for the intellectual life. The "output" of these colleges must therefore be seen in relation to the "input." This does not necessarily mean that the merit of such a college is in its students rather than in what it does to them, any more than it implies that the character of the institution is of no consequence. As a matter of fact, Thistlethwaite (*15*) has shown that the productive colleges have rather special cultural characteristics, and that the climate of the institutions which are especially known for turning out future natural scientists differs in certain ways from that of the ones which are noted for the production of social scientists and humanists. The most likely hypothesis is that the productivity of these schools is the outcome of a fortunate combination of faculty and student expectations, interest, and values. This is one major hypothesis which the Center for the Study of Higher Education is testing in its investigation of student development in some eight institutions, including small liberal arts colleges, a large state college, and a complex state university.

Summary

Two groups of National Merit Scholarship students were selected on the basis of attendance at educational institutions ranked high or low in the production of future scholars and scientists. Four hypotheses pertaining to expected personality differences between matched groups from both sources were explored by means of the following instruments: the Omnibus Personality Inventory, the Strong Vocational Interest Blank, and the Allport-Vernon-Lindzey Study of Values. In general, the hypotheses were firmly supported, and

it was concluded that students of high ability attending highly productive institutions have a pattern of traits, values, and attitudes which is more closely related to serious intellectual pursuits than have students of high ability attending less productive institutions (*16*).

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A: Theoretical. A0, abstract: intellectual curiosity centers on the world of ideas, concepts, and theory, often without tangible subject focus. A2, scientific: intellectual activity involves speculative and creative thought, the spirit of inquiry, and the scientific "method"; intellectualism centers on science and especially scientific research. A3, social: intellectual interests center on social institutions, customs, and behaviors.

B: Applied-professional. B1, biological: orientation is to the application of principles in a broad area of independent responsibility; focus is on medical, biological, and natural sciences. B2, technical: orientation is to application and independent responsibility in technical fields. B3, welfare: orientation is to application and independent responsibility in work with people. B4, business: orientation is to application and independent responsibility in business. B5, verbal: orientation is to application and independent responsibility in "verbal" activities, often of a political or economic nature.

C: Applied-technical. orientation is to application but with limited aspirations for responsibility. Interests are in active, outdoor, technical, or mechanical affairs.

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16. The collection and analysis of data discussed in this study were part of a larger project made possible through a grant from the Carnegie Foundation. Drs. John Darley, Elwin Farwell, and Harold Webster and Mr. George Yonge served as consultants for the project and the study.

Science in the News

Kennedy's Economics: The Dismal Science Made Cheery; Science, Education, and Economic Growth

There are a number of points in common between the Economic Report that President Kennedy presented to Congress last week and the report that President Eisenhower presented 2 days before he left office, which is interesting, because the policy recommendations made in the two reports, despite the common agreements, are miles apart.

Both start with the same data: that unemployment is high, production has declined. Both agree that a moderate upturn is likely in the coming months, even if the government does nothing special to stimulate the economy. Both accept the idea of government intervention in the national economy: the Eisenhower report speaks approvingly of "a keeener awareness [since the war] of approaching downturns and a determination to meet them by positive action rather than by passive acceptance."

Both reports agree that deficit spending can help stimulate the economy: the Eisenhower report notes, as one of the policies that helped stop the 1958 decline, that "a substantial deficit was incurred." Both agree on the need for support of such things as science and education as part of a program for economic growth: the Eisenhower report notes the requirement for "a huge expansion of the Nation's commitment to education." And both agree on the need to control inflation: the Kennedy report calls inflation "a cruel tax upon the weak . . . the certain road to a balance of payments crisis and the disruption of the international economy of the Western World."

This list could easily be doubled in length while still confining itself to major points of agreement on economic facts and principles, and what it proves, in the main, is the wisdom of General Marshall's plea: "Don't ask me to agree in principle; that just means we haven't agreed yet."

The Dismal Science

Thomas Carlyle gave economics its familiar tag, the dismal science, at a time when one of its implicit axioms was that the mass of men are necessarily condemned to existence at a bare subsistence level.

That axiom has become obsolete. No one today accepts the inevitability of permanent economic misery even for the undeveloped nations, and the conditions of mass poverty have already largely disappeared in the more advanced countries. But a remnant remained in the Eisenhower Administration in the form of a conviction that full employment is inconsistent with preserving the value of the dollar, a conviction that grew out of the well-observed tendency for prices to rise before reasonably full employment, say not more than 4 percent unemployment, had been reached.

This suggested that full employment would bring with it strong inflationary pressure, which in turn led an Administration passionately concerned with the value of the dollar to accept as one