Traits of Eminent American Psychologists

Factor analysis shows them to rate high in professional aspiration and research skill but low in altruism.

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Psychologists attending a conference on education for research in psychology (*1*) concluded that "research is learned by doing and taught mainly by contagion," and that in this process "the senior man serves as a teacher and also . . . as a model." Additional studies of psychologists by psychologists have shown that, in the teacher-student relationship, eminence begets eminence—that is, eminent teachers train more students who, themselves, eventually become eminent (*2*, *3*). This phenomenon is by no means confined to psychologists. For example, the chemistry department at the University of California, at Berkeley, before the advent of Gilbert N. Lewis in 1912, had only one man starred in *American Men of Science*, but by 1946 it had produced 22 starred chemists as well as several Nobel prize winners. Visher (*4*) has painstakingly examined the relationship, not only in the behavioral sciences but in the physical and life sciences as well, between enthusiastic, eminent young teachers and their students who eventually won recognition. From none of these studies, however, can one learn much about the general traits and behaviors which have comprised this "infusability of the productive spirit." What have been the distinguishing characteristics of eminent scientists? It was in order to gain information about this important facet of graduate training in psychology that an investigation of this subject was undertaken at the National Institute of Mental Health, Bethesda, Maryland. The data reported here were collected as part of a larger study of some of the social and psychological factors associated with eminence in psychology. For this investigation a sample of 95 operationally defined "eminent" psychologists who had received their doctorates in psychology from American universities between 1910 and 1944 and a control group matched for age, date of receiving the Ph.D., and degree-granting university were sent questionnaires on their socioeconomic and familial backgrounds, their undergraduate and graduate training, some aspects of their professional experiences, and certain personality factors. The results are reported elsewhere (*3*).

Answers to the second part of the questionnaire, which was concerned with interpersonal relationships between graduate students and faculty members during the respondents' graduate training, provided the results reported here. This part of the questionnaire began with a brief description of some possible dimensions of the interaction between graduate student and teacher. Then the respondent was asked to evaluate, on a 34-item trait-rating scale, each of the teachers by whom he was most stimulated as a graduate student. Space was provided for evaluation of as many as three teachers. For each of the 34 traits, a choice of five alternative answers was given, ranging from a strongly favorable to a very unfavorable response. There was also a space where the respondent could record his opinion that the item was inapplicable, or the feeling that he could not make a meaningful evaluation.

From an extensive review of the literature, three hypotheses were formulated, pertaining to the professional role of the psychologist-scientist as manifested in various kinds of institutions and to certain aspects of the student-teacher interaction. Forms were prepared on which sentences describing traits relating to these hypotheses were listed, and preliminary evaluation tests were made. The preliminary test contained about 33-percent more items than the final version. All of the items were of the same nature as those in the final test. Those items which were unclear or which seemed unrelated to the hypotheses being evaluated were eliminated. The respondents for the preliminary testing were a random sample of professional psychologists. After these preliminary tests, revisions in the sentences (or items) were made where necessary.

Of these items, those in a first group pertained to the affective dynamics of the student-teacher interaction—for example, an interest in the success of one's students and a sympathetic understanding of others' problems. A second set of items pertained to professional motivation [see, for example, Boring's reference (*5*) to the will to work longer and harder than other people and the willingness to assume professional obligations]. A third group of items pertained to general research competence and the ability to conceptualize psychological problems. Also, some items were included for the purpose of assessing certain more general personality traits, such as the capacity "to establish warm and friendly relationships," the ability to channel "one's productive energies," and one's "open-mindedness," "ambition," "aggressiveness," "dominance," and "purposiveness." The 34 items of the questionnaire in its final form are shown in Table 1.

However helpful in the selection and training of future scientists information about the personalities and the interaction patterns of eminent scientists may be, the fact of the matter is that such information is peculiarly difficult to obtain. Most biographies and autobiographies of outstanding scientists show a guarded and unsystematic approach. Few people, of course, willingly expose themselves for psychological assessment, and psychologists are no exception! The results of the study in question, therefore, are all the more interesting, for the data represent a unique attempt to obtain the judgments of a sample of trained and experienced psychologists about the scientists who most influenced them during their graduate training. Few men, as I have said,

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willingly evaluate themselves, but many are ready and willing to evaluate their mentors, and in the latter case one would expect greater objectivity.

Since the purpose of the study was to determine the patterns of traits associated with eminence and noneminence in psychology, the teachers named by the respondents as those who had most influenced them during their graduate training were first classified as "eminent" or "noneminent." To arrive at an operational concept of professional eminence in psychology, a list of 52 psychologically oriented professional associations was submitted to a group of 25 psychologists of varying backgrounds and professional interests, with instructions to leave in the list only those groups in which membership or office was considered to be "an honor" and to cross out the names of groups which were of primarily local significance and to which psychologists had only minor commitments. In this way the investigators obtained a residual list of professional associations (*6*) affiliation with which was considered a mark of eminence in psychology. Other honors considered a mark of eminence were a starred listing in *American Men of Science,* election to the National Academy of Sciences, and award of the Howard Crosby Warren medal. The names of teachers who had been cited who were not psychologists, or who were not teaching at the graduate level, were eliminated from the sample. To preserve as much homogeneity as possible in the sample, the names of women psychologists were also eliminated. Although it is not unlikely that opinions will differ about the validity of one or another of the assumed indicators of professional recognition upon which this study was based, few people would dispute the validity of all of them, and the final sample of 239 teachers classified as "eminent" and 136 teachers classified as "noneminent" probably meets generally acceptable standards of validity.

The eminence-noneminence classification became the criterion variable and was added to the 34 trait ratings of Table 1. The distributions of the trait ratings were moderately skewed toward the positive ends of the scales, and tetrachoric intercorrelations were used. The 35 × 35 matrix was subjected to factor analysis by means of Wherry's iterative method (*7*) and rotated orthogonally by graphic methods (*8*). Figure 1 gives the intercorrelation matrix and the final residuals, and Table 1 gives the final factor loadings. The communalities, which ranged from .18 to .89, are presented in Table 1. Seven factors were extracted, of which the first three were the most important and the most easily interpreted. These three accounted for 44.9 percent of the total variance. The results of the factor analysis are discussed in the next section.

Characteristics of Eminent Psychologists

The item-ratings in factor 1 suggest the "altruistic professorial" type, who apparently concentrates as little upon his own sociopolitical career as upon the scientific aspects of psychology. Factor 1 suggests the selfless person who is sensitive about interpersonal relations. He is characterized as co-

Table 1. Items, final orthogonal factor loadings, and communalities (N = 375).

Item	Factor							h^2
	1	2	3	4	5	6	7	
1. He was very much interested in his students' success.	54	08	−43	−08	06	21	−12	55
2. His judgments were sound.	60	03	14	−19	33	13	−05	54
3. He was tactful in his dealings with others.	82	02	18	−09	−23	−04	11	78
4. He was erudite in matters psychological.	20	42	52	23	02	16	−11	58
5. He realized his own abilities and limitations.	46	−05	60	−02	10	21	14	65
6. He was known for his wit and humor.	29	10	28	04	−06	04	−05	18
7. He was warm and friendly to his students and subordinates.	82	−03	−08	10	−33	12	14	84
8. He was ambitious for himself.	−49	70	−11	−05	22	10	11	82
9. He worked harder and longer than others.	02	65	12	−03	10	06	−08	46
10. He was willing to assume professional obligations.	22	72	−14	09	−12	02	−13	63
11. He persisted in the face of obstacles.	15	70	13	04	04	08	17	57
12. He was decisive on matters controversial.	−22	52	33	−25	30	25	−09	65
13. He was an original creative thinker.	02	38	74	17	−13	20	14	80
14. He had a sense of purpose and direction.	12	70	37	04	00	07	13	66
15. His research was brilliant in conception and execution.	14	18	68	−06	20	15	27	65
16. He was self-confident.	03	47	27	−02	29	30	08	48
17. He had sympathetic understanding for the problems of others.	83	−02	−07	−05	−04	00	−11	71
18. He was open-minded.	75	01	12	−02	31	−18	−20	75
19. He stimulated others by his enthusiasm.	37	52	19	−03	−22	31	−05	59
20. His criticisms were fair and impartial.	74	08	13	07	12	−02	−20	63
21. His health was better than average for a person his age.	12	23	−02	85	15	−25	−10	89
22. He was willing to cooperate with others.	88	12	20	19	−02	04	−13	88
23. He planned his work in detail.	06	40	−01	−08	67	08	−17	65
24. He was careful to carry out promises he made.	38	29	35	−04	30	−10	−45	66
25. He was willing to make changes.	52	18	43	01	35	−12	−24	68
26. He was patient and tolerant.	84	−03	−20	03	28	−16	−12	87
27. He maintained definite standards.	32	23	13	−27	65	−06	−26	74
28. His conduct was dignified and mature.	35	37	07	02	53	−05	40	71
29. By his very presence he dominated any gathering.	−17	45	42	00	13	17	45	66
30. He was emotionally stable.	60	13	−09	17	30	13	42	70
31. He knew how to delegate reponsibility.	20	22	07	01	40	18	−16	31
32. He stimulated others by apt criticism.	37	13	46	02	35	52	−21	80
33. He was invariably optimistic.	37	21	17	51	20	55	02	81
34. He saw to it that people under him were working up to their limits.	−03	53	−08	02	18	45	−13	54
35. Eminent-noneminent.	−10	25	39	34	03	−05	−27	42
Total variance (%)	21.5	13.6	9.8	4.2	7.7	4.3	4.2	65

operative (Table 1, item 22), tolerant (item 26), sympathetic (item 17), tactful (item 3), and warm in his relations with others (item 7). This factorial composition is conspicuous for moderately high negative ratings for ambitiousness (item 8), decisiveness (item 12), and dominance (item 29). As one would guess, the altruist was found to be neither predictably original (item 13), self-confident (item 16), nor industrious (item 9). Factor 1, which accounted for 21.5 percent of the total variance, contained a low negative rating for professional eminence (item 35).

Factor 2 suggests the "professional aspirant." This person is also sensitive to interpersonal relations, but in a more assertive way, and is characterized by a willingness to assume professional obligations (Table 1, item 10), by purposiveness (item 14), by personal ambition (item 8), by persistence (item 11), and by a willingness to work longer and harder than others (item 9). Factor 2 contains a moderately high rating for the criterion variable, eminence. The professional aspirant of the study, like outstanding biologists (*9*) and artists (*10*), was judged to have high tolerance for frustration (item 11) and a high capacity to make independent judgments (item 16)—traits putatively related to ego strength. Although the professional aspirant's interpersonal relationships are unrelated to personal warmth (item 7), sympathy (item 17), and tact (item 3), he stimulates others by his enthusiasm (item 19) and makes certain that those under him work up to capacity (item 34). Factor 2 accounted for 13.6 percent of the variance.

Factor 3 suggests the "idea man," who is original and creative in his thinking (Table 1, item 13) and brilliant in his execution of research (item 15). The idea man of the study is also erudite in matters psychological (item 4), and he recognizes his own abilities and limitations (item 5). The idea man is relatively oblivious of other people; he is not interested in his students' success (item 1), not patient (item 26), not predictably warm and friendly (item 7), not willing to assume his professional obligations (item 10), and not personally ambitious (item 8). He shows the kind of introversion—of preoccupation with ideas rather than affairs—that Cattell (*11*) found in his study of eminent scientists. The idea man of the study under discussion has few sanguine human traits; he is not predictably stable emotionally (item

Intercorrelations

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	
1		54	47	-26	09	-12	61	-05	-05	21	18	-07	-25	-05	-10	07	48	40	12	34	13	34	20	35	20	55	21	12	-26	47	36	23	10	23	-13	1
2	21		34	17	34	07	28	-30	12	00	16	21	18	12	25	18	39	44	21	54	02	33	11	20	32	41	35	34	09	45	40	37	35	15	-10	2
3	13	-11		25	38	30	60	-33	03	17	12	-32	02	23	11	07	80	55	25	57	-05	65	00	28	30	71	12	30	-27	55	17	13	43	-20	01	3
4	-21	-02	03		27	30	02	10	35	21	36	28	56	34	46	37	07	08	30	32	29	28	16	31	30	19	31	26	36	12	26	38	40	05	39	4
5	07	-08	-09	-12		42	48	-25	14	02	15	04	35	27	33	13	46	43	42	55	14	52	24	55	46	40	21	41	34	12	09	37	40	13	00	5
6	-17	-13	01	04	13		37	-20	11	27	05	-05	34	15	10	16	41	22	33	25	25	40	-01	19	23	24	-08	-03	02	31	13	20	30	03	-04	6
7	15	-08	-13	-11	13	14		-36	-13	04	00	-33	-10	-10	-15	13	83	38	45	46	04	69	-14	25	30	65	-10	05	-10	46	15	13	40	-15	-21	7
8	09	-10	12	-04	02	-08	10		51	47	37	44	10	48	00	40	-35	-38	08	-48	-03	-33	22	-09	-10	-45	10	25	51	-31	18	15	05	43	28	8
9	-09	03	01	00	08	01	-08	06		53	70	40	32	60	29	30	-15	20	43	12	11	03	35	09	15	-10	35	39	35	-01	01	09	09	35	04	9
10	-03	-09	00	-10	07	16	-16	10	08		67	24	12	40	-01	45	10	12	35	25	35	37	23	10	10	10	30	23	08	22	12	23	15	45	30	10
11	10	02	-04	-03	-01	-09	-12	00	23	17		46	32	73	29	21	-05	21	57	20	14	08	30	16	24	-05	38	42	45	27	23	35	30	32	38	11
12	10	20	-14	-06	-11	-12	00	-09	-03	-01	08		41	60	33	51	-20	13	35	00	-03	-13	51	17	10	34	35	25	50	-10	11	41	06	50	15	12
13	02	11	-16	-04	-13	07	-15	-07	-00	-07	-09	02		69	70	40	-10	17	45	11	10	18	-07	13	45	-17	10	19	42	19	14	55	21	28	33	13
14	-01	-02	04	-18	00	-06	-18	07	11	-07	14	14	11		52	45	-05	12	33	04	23	33	37	19	45	-10	10	41	35	32	22	48	31	24	35	14
15	09	-01	-11	02	-22	-13	-19	-07	09	-02	-01	-05	10	08		35	-06	35	20	15	-10	26	07	35	60	-14	22	33	36	21	22	34	15	-09	45	15
16	06	-02	06	-02	-13	04	19	01	-08	19	-20	02	-01	-01	-05		-01	-01	30	03	15	08	36	11	08	-09	38	45	35	20	45	50	31	37	10	16
17	-01	-10	13	-05	14	18	15	08	-15	-10	-13	01	-04	-09	-09	02		50	33	48	20	69	09	20	30	80	04	11	-10	41	09	14	41	-04	-25	17
18	04	-12	00	-13	05	-08	-07	-04	13	-01	11	-08	17	02	18	-09	-12		29	78	24	65	05	28	44	65	39	43	-20	44	25	43	30	-10	-12	18
19	-10	-03	-13	-13	13	09	08	-06	06	-12	12	07	03	-16	-07	-04	03	10		51	00	50	00	19	24	21	13	15	35	13	27	42	39	35	01	19
20	-03	04	-01	03	16	-01	-07	-16	01	03	04	05	00	-13	-02	-07	-14	13	19		29	62	00	40	33	61	28	25	-15	50	15	33	40	09	03	20
21	14	08	-03	01	18	18	-04	-09	-03	08	-04	10	-04	06	-06	10	14	06	-03	09		38	08	07	15	20	-03	10	20	21	03	-06	48	11	32	21
22	-07	-20	-08	-11	02	06	-02	06	-09	08	-15	-03	-06	07	02	-05	-03	-04	06	-10	09		06	30	55	68	10	31	-04	49	35	35	61	08	04	22
23	05	-19	11	-04	18	-03	07	-17	00	-01	01	06	-11	11	-10	-04	05	-23	-12	-18	-05	-04		53	30	10	55	45	20	20	29	29	16	53	19	23
24	22	-20	05	-10	23	-03	22	-08	-22	-16	-07	-13	-09	-12	08	-09	-12	-25	-06	-07	-12	16	12		63	20	54	23	00	15	45	29	14	32	31	24
25	07	-17	-10	-12	00	-05	07	04	-08	-07	02	-12	15	14	22	-18	-11	-18	-03	-22	-06	-04	-06	02		41	45	35	03	37	50	47	29	-06	35	25
26	02	-14	13	13	16	07	08	-05	-10	-07	-11	-12	04	-08	-12	-07	09	-09	06	-05	-02	-02	-13	19	-08		25	44	-42	56	09	15	37	-09	-09	26
27	00	-14	-02	11	-03	-20	-05	-01	09	17	18	-01	09	-10	-02	07	-22	-14	01	-11	-02	-20	-05	-02	10	-20		41	22	20	18	46	07	30	00	27
28	-04	-04	07	04	13	-14	-10	02	12	01	01	01	01	03	-04	07	-10	06	-03	-03	-09	00	00	-02	-02	06	-04		40	58	35	35	21	19	-11	28
29	-01	02	-23	00	08	-07	04	06	02	-08	01	08	-15	-17	-16	-09	13	-05	10	-04	19	03	01	-03	-06	-19	16	02		17	04	11	25	39	18	29
30	12	04	11	-03	-21	18	-02	-23	-09	05	00	-05	12	12	-02	-01	-03	02	-09	10	-01	-01	-02	03	08	02	-04	00	00		21	30	58	-01	03	30
31	18	10	11	03	-09	04	13	04	-20	-05	03	-16	04	02	04	16	-07	-03	09	-10	-08	11	-12	11	17	-16	-23	05	-07	-01		53	30	15	15	31
32	06	-18	-13	-10	-18	-06	-05	19	-14	12	12	02	12	16	-14	06	-14	04	03	-09	-09	-13	-09	-20	-05	-11	01	06	-12	01	13		50	35	30	32
33	-13	06	20	-05	01	09	06	03	-11	-09	00	-09	-18	-01	-15	-06	15	05	00	06	07	11	-08	-10	-02	12	-07	-11	02	12	-01	-10		40	07	33
34	01	04	-10	-22	12	-01	-09	-03	-04	06	-06	07	09	-11	-20	-04	-02	-07	-01	04	05	02	14	14	-15	-06	08	-01	14	-13	-13	00	02		-04	34
35	07	-05	08	00	-13	-16	-07	14	-18	13	21	-07	-06	06	24	-09	-15	-17	-14	-04	-05	-07	07	01	11	02	-08	-11	00	08	05	07	-16	-17		35

Final Residuals

Fig. 1. Tetrachoric intercorrelations of the trait ratings and the final residuals.

30), nor does he have predictably good health (item 21). Factor 3 accounted for 9.8 percent of the variance and contained the highest rating for the criterion variable (*12*).

Factor 4 is conspicuous only for a high loading on the item pertaining to good health (Table 1, item 21) and for a relatively high loading on the criterion variable. Factor 5 contains fewer high ratings but suggests the kind of superego control that is associated with careful planning (item 23), the maintenance of standards (item 27), and dignified conduct (item 28). Factors 6 and 7 account for little of the variance and were not interpreted.

The results of the factor analysis suggest that when eminence, altruism, professional commitment, and research ability were considered as four characteristics of the professional psychologist, eminence was related to research ability and professional commitment but not to altruism. One may agree with Adelson (*13*), who maintains in his illuminating discussion of the "Good Teacher" that charisma, competence, and influence do not necessarily go hand in hand. Or, one may consider these results in the light of the sociopolitical and scientific values that underlie the achievement of eminence in professional scientific associations. Conceived as one kind of status achievement, scientific eminence reflects current professional sanction-patterns and values, and these, in turn, are reciprocally related to the way in which the professional association articulates its existence in the greater society of which it is a part. The American Psychological Association made clear in the first article of its first constitution that the Association existed for "the advancement of Psychology as a science"; by this, as Fernberger pointed out (*14*), it meant research and contributions to knowledge. It is understandable, therefore, that factor 3, which indicates an individual who engages in the kind of activities through which such advances are made, should contain the highest rating for eminence.

However, scientific societies, like other societies, develop secondary sets of norms for regulating internal affairs —norms designed to assure the sociopolitical continuity of the association. Assuming the obligations incurred by the need for professional sociopolitical existence becomes a second kind of approved activity. Eminence therefore is also related to professional commitment (factor 2).

Taussig once noted (*15*) that the "leading and influential economists" tend toward "tough-mindedness," and this may be equally true for the leading and influential psychologists. At any rate, it comes as no surprise, in view of the quasi-impersonal moretic patterns to which science is dedicated, that the "professorial altruist" does not attain eminence. This designation for the individual suggested by factor 1 appears to have been well chosen, for to be noneminent and yet sensitive to others' needs must indeed be altruism.

Interaction between Personality Factors and University Values

The prototypical question to which the social psychologist addresses himself concerns the interplay between the variables (such as intelligence, motivation, and perception) which have been traditionally conceptualized as "within the organism" and variables (such as group structure and institutional value patterns) which have been viewed as "outside the organism." In the study under discussion the problem becomes the investigation of the intelligent, professionally motivated, eminent scientist located in an incommensurable academic setting. Empirical evidence is so scanty that one cannot yet say either that gifted scientists will realize their potential regardless of the value patterns of the institutions in which they find themselves or that, given proper environmental support, men of modest attainments may still produce something of sustained social value. In this study it was possible to compare the personality characteristics of the psychologists in contrasting academic settings.

From the "cultural-institutional" viewpoint, the goal of the university is education and research, but the characteristics of the professor may vary according to which of these goals is dominant. In one type of academic orientation, characteristics of the professor that are seen as conforming to this value orientation will be rewarded by the institution with approbation in one form or another, while characteristics seen as anticanonical will be condemned; in extreme instances, teachers with the latter characteristics may be separated from the institution.

In the study under discussion, an attempt was made to categorize universities according to their research orientation, on the basis of the proportion of individuals, among those to whom the university had granted a doctorate in psychology between 1910 and 1944, who eventually achieved professional eminence. The same criteria of "eminence" were used as were used in the earlier part of the study—criteria which heavily favor professional motivation and research. According to this classification, the 11 "better" research universities, in the order of the proportion of eminent recipients of doctorates, were Harvard, Stanford, Columbia, Princeton, California, Johns Hopkins, Chicago, Illinois, Syracuse, Yale, and Clark. To this list Cornell was added because of the large number of eminent psychologists it produced just prior to 1910.

If the sample of judgments is sufficiently large and representative, as we assume it to be, the three major characteristics of the teacher-scientist may be seen as embedded in the social system of the university. Then such academic value orientations as can be inferred from, or as have been related to, the research orientations of the "better" and the "other" universities may be related to these personality characteristics.

In order to make an analysis that would reveal this relationship, it was first necessary to convert the 34 trait ratings into standard scores. These scores were then multiplied by the principal factor loadings, so that all the teachers of the sample could be given three separate factor scores. Analyses of variance were then computed for the three factors, the teachers being classified (i) as eminent or noneminent; (ii) chronologically, on the basis of the years during which they had taught; and (iii) according to the classification (as "better" and "other") of the universities with which they had been affiliated.

In the analyses of variance, computed for each factor separately, there were four subgroups: (i) eminent teachers at "better" universities; (ii) noneminent teachers at "better" universities; (iii) eminent teachers at "other" universities; and (iv) noneminent teachers at "other" universities. The F ratios for the differences be-

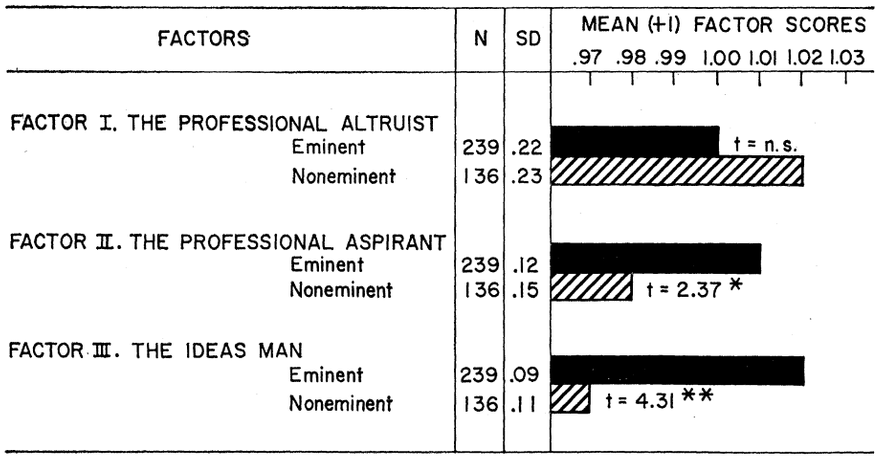

Fig. 2. Means (+ 1), standard deviations, and *t*-tests of the factor scores of the eminent and noneminent teachers.

tween the eminent and the noneminent teachers, the "better" and the "other" universities, and the interactions, for factors 2 and 3, were all significant. For factor 1 the *F* ratios were not significant, and none of the *F* ratios were significant for the chronological dimension.

It appeared that the largest component of the variance for all factors was the eminence-noneminence classification of the teachers (see Fig. 2). As Fig. 2 shows, there was no significant difference, in the ratings of factor 1 (which suggest the "altruist"), between scores for the eminent teachers and those for the noneminent, but in the ratings of factor 2 (the "professional aspirant") and factor 3 (the "idea man"), the eminent teachers had significantly higher mean scores than the noneminent.

In Fig. 3 is presented graphically the interaction between the "personality" factors and the "better-other" classification of the universities. It may be seen that more of the eminent teachers are affiliated with the "better" universities—a finding similar to Berelson's (*16*). The eminent teachers at the "better" universities were noteworthy for professional aspirations and research ability, while the noneminent teachers at the "other" universities were rated very low on these factors, although they were rated very high on altruistic behavior. Altruistic behavior, although sometimes indicated for the eminent teachers at the "better" schools, was not notable in this group. The two most interesting comparisons came from the "mixed" subgroups. Since social selection is never perfect, not all the members of faculties of the prestigious universities were eminent. There were fewer noneminent teachers in the "better" universities, and these teachers may have been somewhat marginal, from the standpoint of the university. They were rated very high on professional aspirations and moderately high on altruism. This description suggests (i) strong personal ambition and social awareness rather than research ability, and (ii) overconcern with, and overemphasis upon, social relations, suggestive of personal insecurity and uncertainty about the requirements of the professorial role in a prestigious university. In the second "mixed" subgroup there were eminent teachers at universities not conspicuous for their production of eminent Ph.D.'s. This second "mixed" group was characterized by moderately high ratings on professional aspirations and research ideas and notably low ratings on altruism. This characterization suggests aspirational and occupational disappointments reflected in unsatisfactory interpersonal relationships. This interaction of personality factors and institutional factors is nicely illustrated by the eminent groups in the "better" and in the "other" universities. Members of these two groups were given equally high ratings on professional aspirations and on ideas. On altruism, however, the eminent group in the "other" universities ranked significantly lower than the eminent group in the "better" universities. It is unlikely that the "better" universities selected their professors for their altruism; the more plausible explanation is that eminent men in an unfavorable environment became less altruistic!

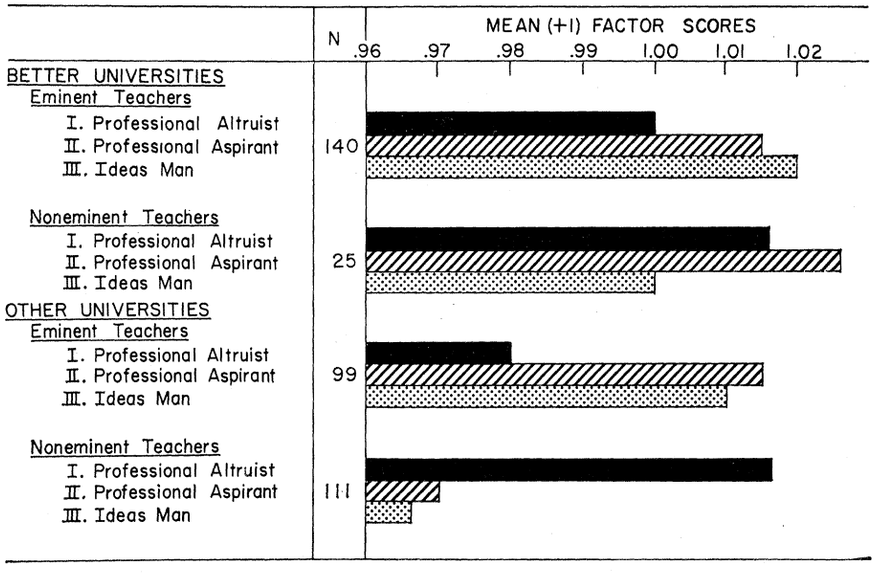

Fig. 3. Factor scores of the eminent and noneminent teachers at the "better" and "other" research universities.

Summary

When the trait ratings of 239 operationally defined "eminent" psychologists and 136 "noneminent" psychologists were factor-analyzed, the results suggested that "eminence" in psychology is related to high research and conceptual ability and to strong professional commitments but not to a generalized concern for the welfare of others—labeled "altruism." These find-

ings were interpreted in the light of the sociopolitical and scientific values by which scientific associations justify their existence.

The "idea man" embodies the primary, scientific values of the association, and despite his relative unconcern for people and power, it is hard to deny him professional eminence. The "professional aspirant," on the other hand, fulfills many of the functions that arise from the necessity for continued sociopolitical existence, and his commitment to these aspects of the association's functions, as well as his ambition and drive, eventually lead to professional recognition.

It was also possible to compare the psychologists in the universities that had "better" research orientation with those in "other" universities. As one would expect, there were more "eminent" psychologists in the "better" universities. More illuminating were comparisons of the "noneminent" teachers in the "better" universities, who were ranked high on professional aspiration and ability and moderately high on altruism, with the "eminent" teachers in the "other" universities, who were ranked high on professional aspiration and research ability but markedly low on altruism.

References and Notes

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News and Comment

Investigation: Mixed Motivations Led to House Decision to Probe Government Support for Research

Last week, in this space, it was observed that the House investigation of federal support for research has been entrusted to a talented but diverse group. The nine-member committee not only reflects conflicting political sentiments toward the role of the federal government in American life but includes senior members of major standing committees that, initially at least, regarded the investigation as a usurpation of their research jurisdictions. Furthermore, the members' present knowledge of the subject is extremely uneven, ranging from close-to-nothing to extreme familiarity. Ironically, the committee members with the most relevant congressional experience are unsympathetic to the inquiry, while their less knowledgeable colleagues are highly enthusiastic.

The chairman of the investigation, Carl Elliott (D–Ala.), is a Kennedy moderate with a record of persevering and effective support for federal aid to education. Elliott, however, concedes that he knows little about the federal involvement in research, and it appears likely that he isn't going to have much time to find out, since he is heavily engaged in averting political destruction in his tortured home state, where he is threatened by segregationist sentiment that is nourishing a booming Republican opposition.

Of Elliott's four Democratic colleagues on the committee, it can be assumed that at least three look upon the investigation as a potential threat to the power and authority of their own committees. They may quite possibly set aside their doubts and work for a meaningful and thorough investigation. But the odds on this are poor. And, if these committeemen should conclude that the investigation is a threat to their main interests, it is worth keeping in mind that their capacity for protecting their vital concerns commands earnest respect in the long, pillared, and shadowy corridors of the House.

As for the four committeemen who comprise the Republican minority, their senior member, Clarence Brown (R–Ohio), is energetically and unswervingly dedicated to reducing the federal budget, of which research and development accounts for some 15 percent. And his Republican colleagues on the committee are so junior in the party's ranks—Brown came to the seniority-revering House in 1935; the most senior of the three arrived in 1961—that only the most virulent sort of political insensitivity could prevent them from deferring to Brown's sentiments. However, it is unlikely that any of the three will be faced with the unpleasantness of swallowing political principles, for inquiry reveals that all of them pretty well share Brown's political sentiments, and one of them, John B. Anderson of Illinois, is of a political bent that, if anything, makes Brown look a bit leftish by comparison.

Thus, it appears that the diversity of committee membership could not be greater if a vegetarian, a meat packer,