Functional Potential is a concept stemming from ego psychology that describes the degree to which a subject is able to tolerate ambiguity, delay gratification, exhibit adaptive flexibility, demonstrate goal directedness, relate to self and others, and have a clear sense of personal identity. Here, that concept has been related to the Omnibus Personality Inventory (OPI) scales in a study of several hundred freshmen in three California community colleges. These students responded to a survey that included both personality and demographic items. Responses of subjects were tabulated and rated as having high, medium, and low Functional Potential. The OPI was also administered and profiles based on the mean scores were compared with the three Functional Potential groups. Comparisons were also made on the basis of sex, age, college attendance, and major field of interest, as well as on pre- and post-testing. Certain significant relationships were found between the Functional Potential model and the OPI profiles, suggesting the usefulness of this approach in further investigations of college students. (Author/AL)
THE RELATIONSHIPS BETWEEN FUNCTIONAL POTENTIAL AND OMNIBUS PERSONALITY INVENTORY PROFILES

by

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This paper introduces Functional Potential—a concept stemming from ego psychology—and reports the results of a study relating that concept to the Omnibus Personality Inventory scales.

Several hundred freshmen in three California community colleges responded to a survey that included both personality and demographic items. Responses of subjects were tabulated and rated as to high, medium and low Functional Potential. The OPI was also administered and profiles based on the mean scores were compared with the three Functional Potential groups. Comparisons were also made on the bases of sex, age, college attended and major field of interest as well as pre- and post-testing.

Certain significant relationships were found between the Functional Potential model and the OPI profiles, suggesting the usefulness of this approach in further investigations of college students.
Traditional approaches to examining academic populations typically concentrate on the appraisal of either very minute or extremely general and diffuse dimensions, usually cognitive rather than affective, demographic rather than ideographic. Recently, however, stemming from certain psychological principles regarding growth and development (Erikson, 1959, 1963; Sanford 1962, 1967; White, 1966), some behavioral scientists and educators have emphasized multi-dimensional approaches to understanding the development of college students along lines other than the traditional. Despite this interest, those students studied along unconventional lines and in comparative depth usually have been enrolled either in select private schools or large public universities (Chickering, 1969; Freedman, 1967; Heath, 1965; Katz, 1968; Newcomb, Koenig, Flacks & Warwick, 1967). The young men and women who are enrolled in two-year colleges and the "new" students, differing from their peers in terms of socio-economic backgrounds and academic experiences, are seldom studied and the traditional ways of looking at students in higher education do not apply to many of the people involved in today's colleges and universities.

Functional Potential is a hypothetical construct built upon psychodynamic principles of human functioning. It describes the degree to which a subject is able to tolerate ambiguity, delay gratification, exhibit adaptive-flexibility, demonstrate goal directedness, relate to self and others, and have a clear sense of personal identity. It offers a picture of the functioning individual in terms of the personal dynamics basic to his behavior and orientation to life. If proven valid and reliable, this approach will be useful for organizing pertinent information into a relatively comprehensive, yet simple system for assessing people in higher education.

The purposes of this paper are to introduce the concept of Functional Potential as a way of looking at all college students, whether traditional or new; to provide a measure of construct validity for the concept by showing how it relates to a published instrument purporting to assess similar dimensions; and to present Functional Potential ratings for community college freshmen classified in terms of age, sex, school, and designated major. In statistical terms, it is hypothesized that subjects showing different degrees of Functional Potential would show no significant differences in their Omnibus Personality Inventory profiles.

METHOD

Subjects

The population for this study consisted of freshmen in three diverse but proximate California community colleges--urban, suburban and rural. The total group included 1770 students tested during their first week of college, 353 of whom appeared for post-testing at the conclusion of their second semester as freshmen. The initial group was composed of 616 students from the urban school, 949 from the suburban and 205 from the rural. Post-tests were administered to 222 students from the urban school, 99 from the suburban and 32 from the rural.

Instruments

The Freshman Survey: A paper and pencil inventory developed for this project,
the Freshman Survey contains a number of statements that, in a counseling or clinical situation, usually would be included in a battery of tests. These questions are of several types--multiple choice, true-false, rank-ordering, open-ended and projective--and pertain to various areas of human functioning. They were designed to obtain demographic data about the respondents as well as information regarding interests, feelings and attitudes about previous experiences, significant others in the respondents' life, and future plans. In addition, the Survey contains an abbreviated (20 item) version of Pace's College and University Environment Scales (CUES) (1969) and two lists of values taken from Rokeach's (1968 a;1968 b) terminal and instrumental values scales.

More pertinent to this report is the way in which selected responses to the Survey are interpreted to fit into the Functional Potential model of human functioning (Brawer, 1970) since this method of analysis is the basis on which the subjects were differentiated. In order to establish a numerical score that describes the degree of Functional Potential manifested in a particular subject (or groups of subjects), a sum rating is derived from responses to particular statements in the Survey. Those statements fall into six categories that have been defined as modes. The modes represent the way the person demonstrates what he is about, provide a conceptual foundation upon which an observer may describe his subjects, and directly relate to the concept of ego strength. Thus they relate to theories of ego functioning expressed by such people as Hartmann (1950), Kris (1952) and Rappaport (1951).

The modes are presented as polar ends but they may be better understood not as either-or conditions but in terms of a continuum. Therefore, while traits on the left side of the paired concepts tend toward the positive and those on the right toward the negative, the mature person frequently demonstrates optimal functioning only when he is at less than either of the extremes. For example, flexibility is usually desirable, but if too little central structure exists, it gives way to emotional liability.

Those modes that contribute to the Functional Potential rating are described as follows: Relatedness/Aloofness indicates the degree to which an individual invests himself in involvement with others, his sense of belonging or, at the other end, his feelings of alienation; Identity/Amorphism describes the sense of certainty about self that may be equated with feelings of wholeness, sameness, directedness or, at the opposite pole, diffuseness and uncertainty of direction; Flexibility/Rigidity measures the openness and closedness of belief systems (Rokeach, 1960) and authoritarianism (Adorno, Frenkel-Brunswik, Levinson and Sanford, 1950), including both the individual's cognitive and affective manner of approach. Independence/Dependence is related to autonomy but does not imply separation or alienation from others; Progression/Regression assesses the orientation toward optimism and pessimism that involves such related traits as activity/passivity, fluidity/immobilization and flow/fixedness; Delay of Gratification/Impulse-Expression is probably most optimally seen in mature individuals who exhibit both ends of this trait, have access to their more archaic impulses and exercise secondary controls when appropriate for the situation encountered.

The Omnibus Personality Inventory: Also administered during both pre-and post-testing sessions, the Omnibus Personality Inventory (OPI) is a paper and pencil device designed to assess selected interests, values and attitudes chiefly relevant within the areas of normal ego-functioning and intellectual
activity (Heist and Yonge, 1968). The norms are based on a large sampling of entering students at 37 diverse colleges and universities (including four junior colleges), and are presented as standard scores having a mean of 50 and a standard deviation of 10.

Brief descriptions of these 14 scales are presented here with the measured characteristics generally defined in terms of the high scorer, except when noted otherwise: Thinking Introversion (TI) measures liking for abstract, reflective thought and interests in academic activities; Theoretical Orientation (TO) reflects an attitude toward scientific, logical or critical thinking, with high scorers characterized by rational and critical approaches to problems; Estheticism (Es) represents interest in artistic matters and a high level of sensitivity to aesthetic stimulation; Complexity (Co) reflects a flexible and experimental orientation instead of a set way of organizing and viewing phenomena as well as a tolerance for ambiguity; Autonomy (Au) measures liberal and non-authoritarian thinking, the need for independence, and tolerance of the viewpoints of others; Religious Orientation (RO) indicates commitments toward orthodoxy or independent religious beliefs, with high scorers tending to reject conventional religious thinking; Social Extroversion (SE) suggests a preferred style of relating to people in social contexts, with very low scorers tending to withdraw from social responsibilities and contacts; Impulse Expression (IE) assesses the general readiness to seek gratification and express impulses, either in conscious thought or such overt behavior as rebelliousness and active imagination; Personal Integration (PI) measures admitted responses to attitudes and behavior frequently characterizing emotionally disturbed or socially alienated persons, with low scorers intentionally avoiding people and admitting to strange and peculiar thoughts; Anxiety Level (AL) points to the presence of anxiety symptoms and nervousness, with low scorers being generally tense, finding difficulties in adjusting to social environments, and having poor self-images; Altruism (Am) describes the degree of affiliation and trust as well as the concern for social welfare; Practical Outlook (PO) points to a liking for factual questions and theories that have direct application as well as an emphasis on the maintenance of order rather than on philosophical problems; Masculinity-Femininity (MF) assesses some attitudes and differences between college men and women, with high scorers denying esthetic interests and anxiety feelings but indicating interest in scientific matters; Response Bias (RB) measures responses to test-taking items, with high scorers responding much the same as students explicitly asked to "fake good."

Procedure

The subjects responded to both instruments, administered in group form, during the first week of their freshman year in one of the three colleges. On the basis of their Freshmen Survey responses they were assigned to one of three Functional Potential groups: low, medium and high. Subjects in the high group were considered to be either functioning better at the time tested or showing the capacity for greater ego functioning than subjects in the medium and low groups.

At the end of their second semester as freshmen, all respondents returning for testing were administered the same two instruments. For purposes of this study the original groupings made according to Functional Potential assignments were kept constant, and comparisons were made on the basis of demographic variables and both pre- and post-responses to the OPI.
The six mode scores which served as a basis for defining the three Functional Potential groups were linear combinations of response variables selected from the Freshman Survey. Once the mode scores had been calculated, a total score was derived for each student by summing his six mode scores. The maximum and minimum possible scores determined the range of possible scores which was subsequently divided into thirds, thereby defining the three Functional Potential groups. For example, a student whose total mode score was equal to one of the scores in the lower one-third of range of possible scores was placed in the low Functional Potential group.

Student responses for the OPI were analyzed by using Biomedical Computer Program (BMD07D). This program gave histograms for each OPI variable over the three mode groups. The histograms demonstrated that the OPI responses were approximately normally distributed for the three mode groups. Means and standard deviations were calculated for each group as well as for the combined group. Finally, the analysis of variance technique was used to test the null hypothesis that the responses obtained were from populations with the same mean. To determine the significance of each test, the F statistic obtained was compared with values of the F distribution with the appropriate degrees of freedom and the corresponding p-value recorded. Tests yielding p-values less than 0.05 were judged to be significant, thus leading to the rejection of the null hypothesis.

RESULTS

One hundred forty-six students (8.2%) formed the low Functional Potential group, while 1,205 (68.1%) and 419 (23.7%) students were assigned to the middle and high groups respectively. Once the students had been assigned to the Functional Potential groups, cross-tabulations were made of the variable with other demographic variables: school attended, age, sex, and major. The results are shown in Tables 1-4.

The method described above was used for the three phases of the study, with phase one consisting of analysis of responses of the total group of subjects comprising those students who responded to both inventories at the beginning of their freshman year (Figure 1); phase two consisting of those subjects responding to the same two inventories at the conclusion of their freshman year (Figure 2); and phase three consisting of comparisons of pre- and post-OPI scores of subjects divided into each of the three Functional Potential Groups (Figures 3-5).
### TABLE 1. COMPARISON OF FUNCTIONAL POTENTIAL GROUPS BY SCHOOL ATTENDED

<table>
<thead>
<tr>
<th>SCHOOL</th>
<th>N</th>
<th>LOW</th>
<th>MIDDLE</th>
<th>HIGH</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>URBAN</td>
<td>616</td>
<td>11.0%</td>
<td>67.8%</td>
<td>21.2%</td>
<td>100%</td>
</tr>
<tr>
<td>SUBURBAN</td>
<td>949</td>
<td>7.1%</td>
<td>67.7%</td>
<td>25.2%</td>
<td>100%</td>
</tr>
<tr>
<td>RURAL</td>
<td>205</td>
<td>11.6%</td>
<td>67.9%</td>
<td>20.5%</td>
<td>100%</td>
</tr>
</tbody>
</table>

### TABLE 2. COMPARISON OF FUNCTIONAL POTENTIAL GROUPS BY AGE

<table>
<thead>
<tr>
<th>AGE</th>
<th>N</th>
<th>LOW</th>
<th>MIDDLE</th>
<th>HIGH</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>18 OR YOUNGER</td>
<td>1314</td>
<td>6.9%</td>
<td>67.0%</td>
<td>26.1%</td>
<td>100%</td>
</tr>
<tr>
<td>19-22</td>
<td>301</td>
<td>15.2%</td>
<td>69.0%</td>
<td>15.8%</td>
<td>100%</td>
</tr>
<tr>
<td>23-26</td>
<td>71</td>
<td>13.9%</td>
<td>70.9%</td>
<td>15.2%</td>
<td>100%</td>
</tr>
<tr>
<td>27 OR OLDER</td>
<td>84</td>
<td>11.1%</td>
<td>73.3%</td>
<td>15.6%</td>
<td>100%</td>
</tr>
</tbody>
</table>

### TABLE 3. COMPARISON OF FUNCTIONAL POTENTIAL GROUPS BY SEX

<table>
<thead>
<tr>
<th>SEX</th>
<th>N</th>
<th>LOW</th>
<th>MIDDLE</th>
<th>HIGH</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>MALE</td>
<td>995</td>
<td>10.0%</td>
<td>68.9%</td>
<td>21.1%</td>
<td>100%</td>
</tr>
<tr>
<td>FEMALE</td>
<td>775</td>
<td>7.4%</td>
<td>66.4%</td>
<td>26.2%</td>
<td>100%</td>
</tr>
</tbody>
</table>

### TABLE 4. COMPARISON OF FUNCTIONAL POTENTIAL GROUPS BY ACADEMIC MAJOR

<table>
<thead>
<tr>
<th>MAJOR</th>
<th>N</th>
<th>LOW</th>
<th>MIDDLE</th>
<th>HIGH</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUSINESS ADMINISTRATION</td>
<td>254</td>
<td>8.2%</td>
<td>67.9%</td>
<td>23.9%</td>
<td>100%</td>
</tr>
<tr>
<td>ENGINEERING/TECHNOLOGY</td>
<td>247</td>
<td>8.6%</td>
<td>72.2%</td>
<td>19.2%</td>
<td>100%</td>
</tr>
<tr>
<td>NATURAL SCIENCES</td>
<td>295</td>
<td>6.3%</td>
<td>60.4%</td>
<td>33.3%</td>
<td>100%</td>
</tr>
<tr>
<td>SOCIAL SCIENCES</td>
<td>213</td>
<td>5.0%</td>
<td>65.6%</td>
<td>29.4%</td>
<td>100%</td>
</tr>
<tr>
<td>HUMANITIES</td>
<td>187</td>
<td>6.7%</td>
<td>64.9%</td>
<td>28.4%</td>
<td>100%</td>
</tr>
<tr>
<td>EDUCATION</td>
<td>168</td>
<td>8.0%</td>
<td>69.3%</td>
<td>22.7%</td>
<td>100%</td>
</tr>
</tbody>
</table>
Figure 3. OPI scores for members of low functional potential group who took B.
**Legend**

- **Pre Test** ————
  N=244
- **Post Test** ————
  N=244

---

**Pre Test**

<table>
<thead>
<tr>
<th>Mean</th>
<th>S.D.</th>
<th>42.3</th>
<th>43.4</th>
<th>47.6</th>
<th>46.8</th>
<th>44.2</th>
<th>49.0</th>
<th>43.3</th>
<th>51.9</th>
<th>45.9</th>
</tr>
</thead>
</table>

**Post Test**

<table>
<thead>
<tr>
<th>Mean</th>
<th>S.D.</th>
<th>42.5</th>
<th>44.0</th>
<th>47.5</th>
<th>48.2</th>
<th>46.8</th>
<th>50.1</th>
<th>43.0</th>
<th>52.3</th>
<th>46.9</th>
</tr>
</thead>
</table>

*F* 0.1 0.5 0.0 3.6 11.0 2.7 0.1 0.2 1.2

*P* n.s. n.s. n.s. n.s. <.001 n.s. n.s. n.s. n.s.

**Figure 4.** OPI Scores for Members of Middle Functional Potential Group Who Took
DISCUSSION

The original sample of 1770 entering freshmen in the three subject community colleges, divided into three subsets designated as Functional Potential groups high, medium and low, was compared on the bases of certain demographic information and OPT responses. Comparisons of Functional Potential groups in terms of school attended and sex (Tables 1 and 3) point to only minor differences. When it comes to comparing the Functional Potential score with different age groups (Table 2), however, it is interesting to note that a greater number of subjects in subset 18 years and younger were in the high group. Comparisons in terms of proposed academic majors (Table 4) indicate that more subjects designating a Natural Science major tend to fall in the high Functional Potential group than do other major designates, while Business Administration, Engineering/Technology and Education majors had more subjects in the low group. This suggests more certainty and, very possibly, more goal directedness on the part of younger students and students choosing to major in the Natural Sciences.

The comparisons between low, medium, and high Functional Potential groups and the OPT profiles allow the null hypothesis to be rejected. Significant differences were found between the groups on all but one of the fourteen OPT scales (Figure 1). It is interesting to note that OPT responses for all three Functional Potential groups fall beneath norms on 12 out of 14 scales. Further, the OPT patterns for the subjects in this study are consistent in that the high Functional Potential group are closest to the norm, and the low the farthest away.

Regarding pre- and post-test results, the discrepant sample sizes point to the need for caution in interpretation. However, it does appear that there is a general movement upward for those who responded to the second OPT, suggesting that the college experience may well be having an effect on its students in terms of both intellectual orientation and ego-functioning. This effect seems to pertain even on the Impulse Expression scale where there is a tendency toward somewhat lower scores for the post-test group.

Examining the low Functional Potential group in terms of both pre- and post-OPT scores, there are directional type changes but, perhaps because of the small sample size, none of these changes appear significant. Interesting-ly, on the OPT Practical Outlook scale, the low Functional Potential group stayed the same for the second test as the first.

For subjects in the mid-Functional Potential group, on the other hand, Practical Outlook showed a significant decrease, moving closer to the OPT norm group and autonomy showed a significant increase. For the high Functional Potential group, autonomy again moved up significantly while Practical Outlook decreased, though not at a statistically significant level.

Two points are particularly indicated by the results of this study: First, the Functional Potential approach to assessment seems to be a valid way of measuring ego processes in the 1770 subjects who comprised this sample; its construct validity was supported by comparison with the OPT. Second, if this population is representative of students in other community colleges, then these institutions must change their curriculums and academic programs. This sample consistently fell below the OPT norm groups representing several thousand freshmen in colleges throughout the country, with the exception of the Impulse Expression and Practical Outlook scales.
Since typical college programs—indeed, typical academic programs at all levels of schooling—leave little room for the expression of impulses; and since cries for relevance often suggest that the curriculums do not apply—hence, are not practical or appropriate—for their constituents, the highs on these scales and the lows on the other OP4 scales only accentuate the need for changes in school programs.

The concepts "ego strength" and "ego functioning" have heretofore been seen for the most part only in clinical settings. Rarely have they been applied to so-called normals as a way of understanding their behavior—particularly in academic settings. Functional Potential is a concept that may be used operationally to measure ego strength because it describes an individual's ability or tendency to perform in his environment to his best personal advantage—to tolerate ambiguity, regress in the service of the ego, delay gratification, integrate experience. People high in these qualities are presumed to have maximum chance for personal satisfaction, to achieve to their own benefit in certain environmental situations. Further attempts to measure Functional Potential seem warranted.
REFERENCES


