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**PSEUDO-SCIENTIFIC GUIDANCE**

*W*HEN A PERSON has a problem, of course he would like to solve it correctly. However, too often he cannot do so. He may not be able to think clearly. He may not have the ability to obtain the correct solution. He may not have sufficient information or even know where to obtain it. In many cases the solution may not be easily obtained and can occur only as a result of a chain of correct responses rather than a single one. Eventually he becomes so involved and harassed that he does not know what to do. At this point he may realize that he needs help but may not want to reveal his need to a qualified person or agency; or he may not know how to determine who is qualified. Rather than reveal his problem he may even prefer to be surreptitious.

Such a person is easy prey for quacks and charlatans. They often advertise widely and glowingly in newspapers, pulp magazines, and telephone directories. They have convenient "offices" in restaurants, fairs, resorts, or centrally located office buildings in the cities. Such charlatans speak in superlatives about their mysterious powers and abilities. No problem is too difficult for them to solve. They exercise no caution or hesitancy. They call themselves by various names and grant themselves odd and worthless degrees. Such a person's problem cannot be solved or even lessened by these charlatans, yet he often seeks their advice and too often is left more damaged than unharmed.

His problem may be far from simple. Most of the problems concerning him do not resemble the simple problems of arithmetic, in which

there is only one correct answer attained briefly and with assurance. For example, John does not know whether to continue his last year of high school, enlist in the Navy, or take the job that his uncle has offered him as a plumber's helper. Here is what seems to be a simple problem in vocational guidance, but it is no simple problem for John. John is not the only person involved since his parents as well as other adults enter the picture, and very often they confuse more than help. John's parents advise him to stay in school, the recruiting officer advises enlistment, and the uncle definitely knows that his job offer is best.

At this point one of the following characters may enter: the physiognomist, the phrenologist, the palmist, the astrologist, the graphologist and the just plain faker. Many of these alleged experts are nothing more than confidence men who ply their trade on gullible and harassed people. If John were to seek the services of such a person, he most assuredly would not obtain the best answer to his problem. Nevertheless, since John and his parents do not know how to solve the problem by themselves, they will be glad to seek the recommendation of someone who claims omniscience. It will be the task of this chapter to shed some light on this sort of person.

The quacks in vocational psychology are many. Roback (16) estimates that there are approximately 15,000 psychological quacks at the present time. He estimates that they spend \$12,000,000 per year for advertising. Since it is not known what part this \$12,000,000 is of the total take, one cannot say definitely how much money people waste on such services. It must be enormous. For example, if advertising expenditures average 10 per cent of income then the total sum spent by people who go to quacks for advice is more than one hundred million dollars a year.

By now the reader is probably saying, "There ought to be a law against this." Be assured that the legal aspects are complicated. Very few cases are prosecuted. These quacks thrive because few states have laws to prevent their existence. A rare instance of indictment is reported by Brotemarkle (2):

Last Spring it fell to my lot to be summoned as a witness of fact and also to be qualified as an expert in what I deem to be the first

case involving the direct problem of psychological service. During the January 1939 term the Grand Jury presented to the District Court of the United States for the District of Columbia an indictment against an individual, charging that that individual "stated and represented herself to be an international authority and lecturer on nutrition and psychology and a mental healer," and that the individual "unlawfully, knowingly, designedly and with intent to defraud, feloniously did pretend and represent . . ."

The facts developing out of this indictment led to the conviction and sentencing of this most charming individual . . . one readily recognized to be among the cleverest of the entire group. She has appealed the case and therefore I think it best for me to delay any detailed discussion of the same. Nor need I present to you any of her advertising which on the whole is duplicated by hundreds of others. It might seem amusing to you, were it not pathetic. To read from her "Master University Course in Personality Building and Character Development for the Individual" would be even more amusing, yet even more pathetic.<sup>1</sup>

Even if the laws were perfect in this instance, it must be remembered that it is not only the quack who is involved. There are always the people who seek out these charlatans and are willing to pay for their "service." The person who visits the quack is usually confused and gullible. It is no wonder that advantage is taken of him. Most of these people do not know the difference between what psychology is and what charlatans claim it to be. They know nothing of the experimental method through which facts about behavior are established. They are naive and often confused in determining cause and effect relationships. A statement about behavior not derived from conclusions based upon experimentation may often result in confusion between cause and effect. For example, the statement that red heads have tempers can lead to a confusion between cause and effect. Knowledge resulting from experimentation reveals that hair coloring is not the cause of tempers. Therefore, red hair does not cause temper.

It must be recognized that a person's anxiety to solve his perplexing problem makes him willing to receive a ready-made "solution" and so encourages and invites the pseudo-solutions of the charla-

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<sup>1</sup> Reprinted from the *Journal of Applied Psychology*, 24:17(1940), by permission of the American Psychological Association, publishers.

tan. Brotemarkle in an address as chairman of the clinical section of the American Association for Applied Psychology aptly remarked:

The specific challenge of quackery to Consulting Psychological Service is probably greater than to any other specific service today save the diversified fields of religious cult practice in which may be found the origins of the quack and to which he even now seems prepared to take final flight. The dissemination of knowledge fundamental to most other professions rendering service to human kind is sufficient to have driven the charlatan to seek other activities especially for cover and defense. Psychological practice is today his greatest opportunity. No field has ever offered the quack richer opportunities. The potency of the human mind has ever been a fertile field for his endeavors; now enriched by the amassed experience and culture of the past the charlatan readily employs this so-called "omnipotence" of the human mind as the basis of his predatory activity.<sup>2</sup>

Munn (11) defines psychology as the science of experience and behavior. Ruch (17) conveys the meaning of psychology by referring to such objectives as the description, prediction, and control of behavior. Psychology as a science collects facts about behavior systematically, organizes them into coherent bodies of information, and finds their relationships and their explanations. Vocational psychology is a branch of psychology related to the aspect of experience and behavior that involves people and occupations. Its task is to collect facts involving the relation between occupations and people, systematically organize them into a body of knowledge, and ultimately contribute to vocational planning. The pseudo-systems do not do this. Regardless of their grandiose claims, they never allow such claims to be subjected to the rigors of the experimental method. Whenever these pseudo-systems and their mumbo-jumbo are checked, the invariable result is to remove the mystical nonsense from their gibberish and to show them to have the confusion between cause and effect that they started out with.

An experiment is simply an observation under controlled conditions. In the case of John, it is not possible to cut him into three parts and have each part follow one of the three vocational plans men-

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<sup>2</sup> Reprinted from *ibid.*, page 12, by permission of the American Psychological Association, publishers.

tioned. However, it is possible to collect facts and organize them as is done in vocational psychology, and with his cooperation, arrive at the best possible vocational step. Facts must be gathered and organized about such elements as age, family background, educational history, intelligence, aptitudes, abilities, and interests. Prediction must be based solely upon these data. Furthermore, it is possible to observe John and many others like him and to make a generalization. Although vocational psychology does not lend itself to the "ideal" type of experimentation afforded the physical sciences, in which all factors are eliminated, neutralized, or held constant except the single experimental factor, it nevertheless allows with suitable modifications findings based upon data collected. Such a modification allows for the advisability of using the clinical method in vocational psychology. The confusion between cause and effect is generally prevented.

As each of the "systems" is discussed, it is hoped that the major differences between vocational psychology and the pseudo-science of the "lunatic fringe" will become clear.

### **Physiognomy**

Physiognomy is the supposed art of discovering traits of character, personality, and so on from the outward appearance, especially the face. All physiognomists take advantage of the fact that too often people are uncritical and will accept the incorrect conclusion of reasoning by analogy, which often leads to confusion between cause and effect. Many people either like or dislike a face and accordingly judge behavioral accompaniments which do not have anything to do with the face.

According to physiognomists, the face can be divided into many minute areas, each related to mental traits and ultimately to vocational success. Physiognomists claim that by studying people's faces they have been able—with never a failure—to guide these people correctly in choosing their vocations. There is ordinarily no evidence offered to support these assertions; there are no experimental controls. And without such scientific support, the cause and effect relationship that physiognomists claim exists cannot be accepted.



## Phrenology

Phrenology is the system which claims that the brain is divided into small parts, each section controlling an independent faculty or power; any overdevelopment of a faculty causes a bump on the head. Therefore, an analysis of the bumps tells all. In a very remote way, phrenol-



*From Floyd L. Ruch, Psychology and Life, 3rd ed., published by Scott, Forsman and Co.*

ogy might be considered as being related to the mind-body problem or, as stated in a more modern way, the problem of localization of cerebral function. Gall, who is considered historically important in phrenology, developed his system primarily by observing friends

and acquaintances. He assumed that when a friend had a bump and also a certain trait that these two went together, not only for the friend but for everyone else.

The specific brain location alleged by phrenologists to be related to amateness has been determined by experiment to maintain equilibrium. Destructiveness, according to phrenologists, is located in the area that physiologists know determines auditory sensations.

Phrenology has been disproved by experimentation, but it is necessary to mention the obvious fallacy of reasoning by analogy and drawing conclusions on limited samples. Also fallacious is the peculiar notion that the soft tissue of the cerebrum can make dents in the bone tissue of the cranium.

Most phrenologists are found at amusement parks and state fairs. The figure on page 32 is their trademark.

Examining phrenology with the criteria of experimental methodology, one readily sees that there is no basis for any serious consideration.

## **Astrology**

Astrologers claim to be able to tell all about your past, present, and future by ascertaining the position of heavenly bodies particularly in relation to your date of birth. The continued appearance of columns on astrology in some of our most accepted and respected newspapers indicates man's willingness to accept this nonsense. The confusion between cause and effect is obvious. The particular date a person is born is not related to the position of heavenly bodies; anyone with a knowledge of biology knows this to be true.

Parr (15) reports an interesting study on the effectiveness of horoscope readings. Sixteen astrologers advertising in pulp magazines were requested to send him horoscopes. In all, sixty personality traits were assigned to him. Only five were in any way objectionable, illustrating the principle used by most of these charlatans of favoring "molasses over vinegar." Tabulation of the days which the horoscopes referred to indicated that all but three of the three hundred sixty-five were designated as either lucky or unlucky days and each of the days in the year were termed lucky by most of the astrologers and unlucky

by the others. In six cases supplemental horoscopes were sent (of course for an additional fee). In each of these six cases, three questions were asked: (1) "In what line of work have I the best chance to

TABLE 1

ANSWERS TO QUESTIONS ON OCCUPATIONS  
BY SIX INDEPENDENT ASTROLOGERS\*

Astrologers	Question 1	Question 2	Question 3
	<i>In what line of work have I the best chance to succeed?</i>	<i>How long will I be in my present position?</i>	<i>When will I receive a raise in pay?</i>
A	It would not be to your advantage to make a decided change in your line of work.	Present work offers you a chance for advancement.	No immediate prospect.
B	You will get into a different type of work within the next year.	You will make a change in the fall of this year.	A change in position will take you to a larger place.
C	I see no change in your present position.	Present position will last another year and you will get a promotion from same company. I see no change in view.	Before end of present year.
D	You should do well in scientific work.	No immediate change.	You will get one this summer.
E	Your traits point toward a business career.	You will change when conditions improve.	Because of depression a raise will be postponed.
F	In whatever you attempt to do.	It would not pay you to change. Sit tight.	More pay right away.

\* *Occupations, the Vocational Guidance Journal*, published by National Vocational Guidance Association, Incorporated, 16:238 (1938).

succeed?" (2) "How long will I be in my present position?" (3) "When will I receive a raise in pay?"<sup>3</sup> The person asking these questions of the six astrologers was a commissioned officer in the U.S. Army. Table 1 indicates the answers he received to each of these questions.

<sup>3</sup> *Occupations, the Vocational Guidance Journal*, published by National Vocational Guidance Association, Incorporated, 16:238(1938).



## **Palmistry**

According to a palmist the creases, lines, folds, and tufts of the hand are related to vocational as well as other forms of advice. A book (not on our suggested reading list) by W. B. Benham, entitled *How to Choose Vocations from the Hands*, describes the work of the palmists. An abstract from a typical palmist is quoted as follows:

The hand of a good judge is very long to give him patience and has a dominant first finger for rule, and he always has a remarkable line of head. . . . The peculiarity of the hands of a physician is a certain elasticity of palm, soft yet very firm, wide with long fingers, a turned thumb, high Luna and Mercury mounts; the line of head ought to be sloping, and the third finger dominant.<sup>4</sup>

Again it is not advisable to select vocations on such a basis; no experimental evidence is offered, and the relationship between cause and effect is not at all clear.

## **Graphology**

Both quacks and scientists are found as exponents of graphology. The quacks indulge in generality and unsubstantiated claims. The scientists are more cautious. When one views handwriting as an expression of the individual and therefore a revealer of personality, then we are in the realm of possibility. Murphy (12) states that much of the theory offered by contemporary graphology makes sense and is very reasonable. But he is concerned about the problem of validation which he thinks needs more clear-cut definition and solution.

There are a number of psychologists who are seriously investigating through experimental and clinical techniques many possible hypotheses and theories. Until such time as the evidence is conclusive, it will be necessary to maintain an open mind.

As an example of a favorable statement by a psychologist the following private communication by Gertrude Aull is offered:

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<sup>4</sup> From Katherine St. Hill, *The Book of the Hand*. New York: Putnam, 1928, pages 259-260, as quoted in *Readings in Industrial Psychology*. New York: D. Appleton and Co., 1931, pages 87-88.

Graphology, as applied by Central European psychologists, is based in its present form predominantly upon the works of Ludwig Klages, otherwise known as the originator of a holistic, personalistic system of personality theory. His basic postulate is the absolute uniqueness of individual personality, seen as a unitary, meaningful psycho-physical process. In this sense, all of an individual's behavioral moves and gestures are assumed to have psychic correlates, and to be actually expressive and highly characteristic of his needs, impulses and attitudes, in short of his total personality.

Handwriting is conceived as a trail of expressive moves, which affords a picture of the writer's typical manner of structuring and organizing space. The characteristics of handwriting differ from person to person regardless of the uniformity of instruction and the medium or instruments used. Furthermore, in a normal adult, volitional effort to change the handwriting results in only superficial changes in script.

Modern personality diagnostics has made frequent use of expressive efforts of subjects (for example, figure and other controlled and free drawings, paintings, and acting), giving attention to both the form and the spatial orientation revealed. The use of handwriting in diagnostics has the advantage over these techniques of dealing with products which are easily accessible and which may be obtained naturally without the artificiality of a staged laboratory test situation. All that is needed for a handwriting diagnosis is a large enough sample (at least several lines), unhurriedly and informally written and, as with all projective tests, information as to the subject's sex and age.

Diagnostic interpretation of handwriting is concerned neither with content or calligraphic beauty of the script, but with its form as such. The significance of form in handwriting may be considered under three different aspects:

1. Handwriting as a trace of an individual's hand and arm movements, unique and characteristic for him, and so of his typical and recurring gestures.
2. Handwriting as a task to be performed.
3. Handwriting as the creation of an individual pattern, which develops not consciously planned yet under the watchful eye of the writer.

Observation and contemplation of form along these lines leads to further inquiry:

1. What are the muscular operations involved in the given writing movements (such as contraction and release)? What ac-

tions or experiences is a gesture remindful of and what does it convey? What needs and impulses prompted it? What is the writer trying to do? Writing moves all may be translated into behavioral axioms illustrative of typical efforts, attitudes, emotions (for example, hiding, dealing a blow, protecting, asserting).

2. While performing his task the writer is moving along through space towards a certain goal and towards a meeting with the environment. How does he get there? Slow or fast, graceful or clumsy, plodding along with regulated steps or striding boldly. Surely, his image of the goal (as close, distant, promising or indifferent) and his perception of the road (as free and open, endangered by obstacles, wide or narrow) will help to determine his pace.
3. What are the structure, quality, style of the writing pattern? What is the effect intended upon the observer? How does the writer deal with the available space and how successful and original is his departure from the conventional school pattern?

Meaningful interpretations along these lines must, as in all projective tests, proceed by the Gestalt principle. Criticism of graphology is frequently based upon the faulty assumption of an absolute point-to-point relationship between any definite "signs" or symptoms of scripts in general and psychological correlates or traits. Handwritings must be diagnosed "from above," that is: individual aspects gain their significance and meaning from the general level of form in the total pattern, which serves as a specific frame of reference. They are not interpreted absolutely, but in view of a configurational interdependence and relationship between all aspects presented in the handwriting. A given characteristic then can extend along an ambivalent scale, and so may be found to be of positive or negative value, according to the total pattern in which it occurs. The trait of domineeringness, for example, may be qualified either by assertiveness and self-reference or, in another case, by the capacity to understand and to adapt to others. Thus any major aspect of the script, such as smallness, may have a large scale of possible meanings, ranging from modesty and tolerant devotion down to compulsiveness and self-torture. Its specific meaning in a given sample will depend upon the context of which smallness is but one aspect.

Diagnosis proceeds by major and minor dimensions, which have been empirically found to correlate with certain dimensions or aspects of personality, such as vertical and horizontal dimensions (related to the writer's orientation towards the self and to reality), rightward and leftward (future, contact, goal vs. past, self); more specifically,

aspects of extension (large, small, narrow, wide), velocity, impact, degree of fluctuation (regulated or rhythmical) forms of binding, ductual dispersion and their psychological counterparts.

The final product should be a highly specific yet complex picture of the personality, his way of doing things, his style of life, his means and manner of externalization and self-realization.

Objections to graphology as a diagnostic device have been raised mainly on two grounds: it cannot be expressed in quantitative terms, and it may not be readily taught to every student of psychology. These same objections, however, hold true for all of the other conventional projective tests. The fumbling beginner relies upon quantification, while the experienced clinician frowns upon pragmatic acceptance of absolute rules and formulas and prefers to exploit the qualitative data. Adequate handling of psycho-diagnostics requires more than adequate instruction. It requires keen perception, knowledge of personality dynamics both normal and abnormal, and in addition a thorough familiarity with the psychology, for example isomorphistic meanings, of expression. Graphology, as any other projective test, cannot be validated by correlating "factors" with those of other tests. Much rather it must validate itself (and has done so) by success in daily exposure to practical clinical experience.

As for the vocational significance of graphology: whatever was said of personality diagnosis can be applied for purposes of vocational guidance. That means that there is no point-to-point relationship between symptoms of the script and specific absolute vocational aptitudes or prospects. Vocational guidance which conceives of vocational choice not as a mere means of making a living, but as a socialized outlet and field of satisfaction for personal needs and tendencies, as a way of realizing personal goals and attitudes, can profit considerably from as complex and specific a personality picture as graphology affords. It may not yield an infallible prediction of success and failure, but vocational guidance which is aware of occupation as a human phenomenon requiring specific physical and psychological attitudes, will find the same physical and psychological attitudes behaviorally expressed in handwriting.

However, there is a kind of graphologist who does not deserve serious consideration: the kind who claims, without offering evidence, that ambition is related to lines that slope upward, force to heavy lines, and perseverance to long bars on the letter *t*. There again crude analogy is self-evident. It is most likely universally true that

those graphologists who advertise or write columns in the newspapers and are able to give you a diagnosis for ten cents are not scientific.

To illustrate this point, one of the authors made an investment and received a list of the following traits, which are a reflection of his personality according to quack graphology. Since the traits that go with the advice as to whom he should and should not marry is likely to apply to most of the readers, he passes along this advice for nothing, which is exactly what it is worth.

*Qualities that add to your charm:*

An intensively **ACTIVE MIND** makes you interesting company. Everything you do is with **ARTISTIC** insight and **CULTURED** taste.

Your excellent **ENTHUSIASM** aids in making others enthusiastic. Others are unable to resist that certain **MAGNETIC** quality you possess.

With such **PERSEVERANCE** and **COURAGE** you never really give up.

**SELF-ASSURANCE** keeps you—and often others—from doubting your success.

**VITALITY** and a **DYNAMIC FORCEFULNESS** are yours.

*Qualities that may detract from your charm:*

**IMPATIENCE** or **RESTLESSNESS** can make some of your friends uneasy.

**STUBBORNNESS** is never an asset to charm.

*“Tips”*

Seldom let others realize your strong desire to dominate.

Your emotions are dynamic. Be careful not to use them to disadvantage.

*You will be happiest in marriage with the type of person checked:*

An agreeable partner who enjoys being told what to do—by you.

A responsive person who forgives and forgets easily.

*With your temperament you should NOT marry the type of person checked here:*

A really obstinate person who won't do as you say.

Another graphologist checked the following traits for the same author. This analysis cost 25 cents. Again with the same devotion the



checked traits are presented with the view that it might apply to a lot of others.

Affectionate	Imaginative
Active	Moody
Aggressive	Love of beauty
Broadminded	Responsive
Congenial	Sense of humor
Concentration	Executive ability
Demonstrative	Artistic nature
Idealistic	Good mixer
Open-hearted	

Super (21) conducted an investigation of a woman who claimed to be a graphologist and wrote articles for many leading newspapers. Each of 24 students in a psychology class checked a question asking for vocational help on the coupon in the newspaper and wrote three sentences in accordance with the directions: "Dear Miss D—, Please tell me what I am best fitted for. I will greatly appreciate your help. Thank you in advance." These were mailed at different intervals with the necessary 10 cents per enclosure.

All students were given an American Council of Education Intelligence Test, the Bernreuter Personality Inventory, and the Strong Interest Test. The findings of these psychological examinations reveal that the assignment of the suggested occupation range as proposed by the graphologist, when compared with the occupation range suggested by the Intelligence Test, is no better than might have been achieved by guess-work.

In only one case did the graphologist suggest that a student enter the type of occupation in which the Strong Interest Test indicated he was most likely to find satisfaction. The graphologist recommended that thirteen of the twenty-four enter the field of physical science or a skilled occupation. The test revealed only one student scoring highest in those fields. The occupations recommended by the graphologist were quite different from those that would have been recommended on the basis of the interest inventory; certain unsuitable occupations being recommended with more than chance frequency by the graphologist were affected by a constant error in favor of certain types of

occupations for men, namely engineering, skilled trades, and sales work.

In addition, the graphologist had a check list of 29 personality traits. Six of these seemed comparable to those measured on the Bernreuter. Three students were not told they lacked self-confidence, and twenty-one were so told. Oddly enough, the average score of the twenty-one indicated more self-confidence than the average score of the other three. The graphologist's diagnosis of personality traits was similar to chance in all cases except two, and for these two traits, it was considerably worse than chance.

An interesting analysis of graphology is offered by Crider (3). He furnished handwriting specimens to two handwriting specialists and requested analysis. Although the analyses seemed astonishingly correct, more careful study revealed that they were cloaked in such generalities that it was hardly possible for them to be wrong. At this point Crider administered 13 standardized psychological tests to 18 subjects, and also wrote out in detail a description of the traits the tests purported to measure. These traits were then carefully explained to both graphologists, and they were requested to rank the specific handwritings in the order in which they revealed the various traits. The results are presented in Table 2.

TABLE 2

CORRELATIONS REPORTED IN THE CRIDER EXPERIMENT\*

Graphologist I and tests	.146
Graphologist II and tests	.268
Graphologist I and II	.175
Graphologist I and I	.818

\* From the *Journal of Applied Psychology*, 25:323-325 (1941), by permission of the American Psychological Association, publishers.

Crider concludes that the correlations indicate that graphologists do not agree with what the psychological tests purported to measure and the two graphologists do not agree with each other. One graphologist agrees with himself indicating that whatever he ranks, he ranks consistently.

It is necessary to report that graphology is used in industry. For example, Long and Tiffin (9) sent a questionnaire to 12 companies

which had been suggested as possible advocates of graphological analysis. The replies from nine led to the conclusion, according to Long and Tiffin, that graphology—and not the reputable kind—may be enjoying a more cordial reception in business and industry than most of us realize. The following quotes are typical:

The vice-president of a furnace manufacturing company wrote as follows:

"This filled-in application form is submitted to a graphologist—more for character analysis than for any other purpose—and our experience over the past four years indicates that the percentage of misses on the part of the graphologist are (sic) less than 10%."

The director of a retail sales organization wrote as follows:

"For instance, in a group of about fifty applicants answering a blind ad, I easily selected the most intelligent and forceful personality by the handwriting alone. Subsequent interview of this large group proved that the person thus selected was head and shoulders above the others.

"The axones of the brain cells extend down the spinal cord and the arm into the hand. Hence, it is literally with a part of the brain that we write. It is entirely logical, therefore, that handwriting should reflect the quality of mind."

The president of a construction company wrote as follows:

"Graphology when in the hands of such an experienced and ethical person as ——— takes its place with any of the sciences.

"We feel we have saved money in being guided by graphology when employing help. In the case of temporary employees who have to handle large sums of money, a handwriting check-up is as good as a surety company check-up, where time is limited."<sup>5</sup>

An attempt to evaluate the offerings of these charlatans according to the rigorous standards of science always leads to the same conclusion—they have no value. Humiston (8) demonstrates this point very clearly. He had his future read by 25 practitioners. In 13 instances, he visited them personally, and in 12 he consulted them by mail. Included were five astrologers, five clairvoyants, five palmists, three numerologists, one vibration reader, one analyst of human chemistry.

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<sup>5</sup> Reprinted from the *Journal of Applied Psychology*, 25:470–471 (1941), by permission of the American Psychological Association, publishers.

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The writer sought vocational information based upon the following 28 major headings:

agriculture	food and home	manufacturing
arts	economics	industries and
building trades	forestry	trades
business	government and	metal and mechanical trades
clerical	public service	mining and quarrying
communication	health	publishing and
domestic and personal	labor	printing
service	languages	religious work
education	law	science
engineering	library	social work
fishing	manufacturing and	transportation
	industrial executives	writing

Twenty-one of the major fields were suggested by a variety of the advisors, and the reasons are as varied as the suggested vocations. For preparation for a vocation, college, night school, and special training schools were advised, although four practitioners definitely advised against college. One astrologer advised working in a drugstore as the best preparation for becoming a chemist. With reference to personality diagnosis, eleven described Humiston as strong-willed, stubborn, determined, and persistent, while eight others thought that he was changeable, vacillating, and procrastinating and had a lack of perseverance. Nine of 18 made the sage remark that home life and family would contribute most to happiness. From the data gathered, Humiston concludes that fortune tellers whether of the same type or of a different type do not agree among themselves. The advice given is general, vague, and contradictory.

Specific advice rarely occurs, and when it does, it is not accompanied by sound, adequate, or practical explanations. He found the fortune tellers to be uninformed on the psychological, educational, and economic aspects of vocational guidance, with no knowledge of job opportunities or occupational information. Humiston also discovered that the amount and kind of advice is frequently contingent upon the fee paid.

Forer (6) makes a very good point when he emphasizes the possibility of committing the error of "universal validity." He uses this term to refer to personality evaluations couched in such generalities

that they apply to everyone. Such descriptions are likely to be verified on the basis of "personal validation" and are useless. Forer states:

The crystal-gazer is likely to be aware of some of these points and other pseudo-diagnosticians, though they may be unaware of the fallacies inherent in their procedures, make effective use of "universal



*Reprinted by permission of the artist*

"YOU LIVE WITH A GREAT MANY MEN; YOU ARE NOT VERY WEALTHY; YOU KEEP  
REGULAR HOURS. . . ."

validity" and "personal validation" in deceiving their clients. Allport states that "one way in which character analysts secure a reputation for success is through the employment of ambiguous terms that may apply to any mortal person." A naive person who receives superficial



diagnostic information, especially when the social situation is prestige-laden, tends to accept such information. He is impressed by the obvious truths and may be oblivious to the discrepancies. But he does more than this.<sup>6</sup>

Thirty-nine students in a class taught by Forer were given Diagnostic Interest Blanks and one week later each student was given a typed sheet with his personality sketch. Unknown to the students, each one was given the identical sketch as follows:

1. You have a great need for other people to like and admire you.
2. You have a tendency to be critical of yourself.
3. You have a great deal of unused capacity which you have not turned to your advantage.
4. While you have some personality weaknesses, you are generally able to compensate for them.
5. Your sexual adjustment has presented problems for you.
6. Disciplined and self-controlled outside, you tend to be worrisome and insecure inside.
7. At times you have serious doubts as to whether you have made the right decision or done the right thing.
8. You prefer a certain amount of change and variety and become dissatisfied when hemmed in by restrictions and limitations.
9. You pride yourself as an independent thinker and do not accept others' statements without satisfactory proof.
10. You have found it unwise to be too frank in revealing yourself to others.
11. At times you are extroverted, affable, sociable, while at other times you are introverted, wary, reserved.
12. Some of your aspirations tend to be pretty unrealistic.
13. Security is one of your major goals in life.<sup>7</sup>

These statements came largely from a newsstand astrology book. To describe the results of the experiment, Forer's remarks are most relevant.

After the papers had been returned to the writer students were asked to raise their hands if they felt the test had done a good job.

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<sup>6</sup> Reprinted from the *Journal of Abnormal and Social Psychology*, 44:119 (1949), by permission of the American Psychological Association, publishers.

<sup>7</sup> *Ibid.*, page 120.

Virtually all hands went up and the students noticed this. Then the first sketch item was read and students were asked to indicate by hands whether they had found anything similar on their sketches. As all hands rose, the class burst into laughter. It was pointed out to them that the experiment had been performed as an object lesson to demonstrate the tendency to be overly impressed by vague statements and to endow the diagnostician with an unwarrantedly high degree of insight. Similarities between the demonstration and the activities of charlatans were pointed out.<sup>8</sup>

Forer's study seems most useful insofar as he was able to duplicate or surpass the results of the pseudo-diagnostician without even the use of a diagnostic instrument or a supposed system based upon the confusion between cause and effect.

Donald Paterson has used a form called "character reading at sight of Mr. X." It is a further illustration of the use of a vague statement having "universal validity." In correspondence with the authors, he states, "I have used this on innumerable occasions for reading character at sight on members of rotary clubs, etc. and have had the person being read and two of his friends check on the accuracy of each statement made. They always certify that my readings have been from 90 to 95 per cent accurate." The character reading used is illustrated in the accompanying figure.

Before accepting the claims of a system or diagnostic instrument it is necessary for it to stand the test of experimentation. The relationship between the method of analysis and the results derived must be verified experimentally. The procedure must be sufficiently objective so that others can repeat it to obtain the same results and conclusions. Although it is not necessary that a cause and effect relationship be immediately obvious it should be possible to examine the claims based upon the data presented in order to verify the validity of the conclusions.

The material previously presented indicates that most of the systems described are mystical and subjective and do not stand objective evaluation. It is generally true that these systems are not supported when relatively careful experiments are conducted to check the claims.

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<sup>8</sup> *Loc. cit.*

## CHARACTER READING AT SIGHT OF MR. X

According to the System of Mr. P. T. Barnum.

**Abilities:** Above average in intelligence or mental alertness. Also above average in accuracy—rather painstaking at times. Deserves a reputation for neatness—dislikes turning out sloppy work. Has initiative; that is, ability to make suggestions and to get new ideas, open-mindedness.

**Emotions:** You have a tendency to worry at times but not to excess. You do get depressed at times but you couldn't be called moody because you are generally cheerful and rather optimistic. You have a good disposition although earlier in life you have had a struggle with yourself to control your impulses and temper.

**Interests:** You are strongly socially inclined, you like to meet people, especially to mix with those you know well. You appreciate art, painting and music, but you will never be a success as an artist or as a creator or composer of music. You like sports and athletic events but devote more of your attention to reading about them in the sporting page than in actual participation.

**Ambitions:** You are ambitious, and deserve credit for wanting to be well thought of by your family, business associates and friends. These ambitions come out most strongly in your tendency to indulge in day-dreams, in building air-castles, but this does not mean that you fail to get into the game of life actively.

**Vocational:** You ought to continue to be successful so long as you stay in a social vocation. I mean if you keep at work bringing you in contact with people. Just what work you pick out isn't as important as the fact that it must be work bringing you in touch with people. On the negative side you would never have made a success at strictly theoretical work or in pure research work such as in physics or neurology.

Donald G. Paterson,  
Professor of Psychology.

**Who is qualified to give guidance**

It is necessary at this point to mention that many who claim to be psychologists are not. It is important to know the qualifications of an accredited psychologist. Usually an accepted member of a profession belongs to the national professional body. For psychologists, this group is known as the American Psychological Association. It has two classes of membership, fellow and associate. The fellow has higher status. Educational requirements, professional experience, and scientific contributions determine election to the Association. It is rare that a person who deserves recognition as a psychologist does not belong to the American Psychological Association. In addition to professional recognition through membership in the A.P.A., psychologists may be granted Diplomate status as a result of the organization in 1947 of the American Board of Examiners in Professional Psychology. Until 1950, the Board granted diplomas (in clinical psychology, industrial psychology, and counseling and guidance) on the basis of training, professional experience, personal integrity, and special competence in the specific professional field. With the expiration of the "grandfather clause," or examination waiver, passing of examinations was added to the requirements.

This is not to claim that the only one entitled to give vocational guidance is a psychologist. For example, there is a national professional body known as the National Vocational Guidance Association with two types of membership. This professional group has definite standards of admission for professional members although it does admit others as members who are interested in vocational guidance. It is likely that the percentage of competent people in these associations is far greater than that in the group outside them who claim to be guidance experts.

David (4) analyzed the status of psychologists who advertise in telephone directories and discovered that the proportion among them who are members of the American Psychological Association is small. Table 3 is presented to show the distribution in 20 of the larger cities in the United States.

The safest procedure for any individual seeking vocational guid-

# PSEUDO-SCIENTIFIC GUIDANCE

ance is to contact the local college or state university. In most instances, a member of the Psychology Department will be able to make a referral to either an accredited agency or a professionally qualified individual.

In most large cities there is likely to be a Welfare Council. The In-

TABLE 3  
PSYCHOLOGISTS WHO ADVERTISE IN TELEPHONE  
DIRECTORIES\*

<i>Cities in Order of Size, 1940 Census</i>	<i>Rank by Population</i>	<i>Rank by No. of Advertisements</i>	<i>Total No. of Advertisements</i>	<i>No. of Separate Individuals Listed</i>	<i>Advertisers Listed in A.P.A. Yearbook</i>	<i>Advertisers Listing Academic Degrees</i>	<i>Advertisers Listing A.P.A. Membership</i>
New York City	1	1	105	71	17	3	—
Chicago	2	3	40	25	6	8†	—
Philadelphia	3	5	10	7	2	—	—
Detroit	4	8½	6	3	1	—	—
Los Angeles	5	2	71	55	8	11	3
Cleveland	6	15	3	3	1	—	—
Baltimore	7	8½	6	5	0	1	—
St. Louis	8	10½	5	3	0	—	—
Boston	9	7	7	6	0	—	—
Pittsburgh	10	16	1	0	0	—	—
Washington	11	18½	0	0	0	—	—
San Francisco	12	4	18	13	1	1	1
Milwaukee	13	13	4	2	0	—	—
Buffalo	14	18½	0	0	0	—	—
New Orleans	15	18½	0	0	0	—	—
Minneapolis	16	13	4	2	0	—	—
Cincinnati	17	6	8	5	2	1	—
Newark	18	13	4	2	0	—	—
Kansas City	19	10½	5	3	0	—	—
Indianapolis	20	18½	0	0	0	—	—

\* Reprinted from *The American Psychologist*, 3:206 (1948), by permission of the American Psychological Association, publishers.

† Through Illinois Association for Applied Psychology.



formation Bureau of such an agency is also in a position to make referrals on a sound professional level.

This chapter has attempted to eliminate at once any pseudo-scientific system as a part of vocational guidance. The chapters to follow will discuss the scientific aspects of vocational guidance.

### Summary

People with problems are easy prey for charlatans. For many reasons they inadvertently seek the services of sponsors of pseudo-scientific systems and support them to the extent of one hundred million dollars annually.

The charlatans do not draw conclusions based upon sound scientific experimentation; and they willingly confuse cause and effect to the extreme disadvantage of naive and harassed people with problems. Specific investigations of physiognomy, phrenology, astrology, and palmistry show decisively that these systems are based upon mystical or confused ideas of the relationship of cause and effect, rather than upon sound experimental evidence. Graphology was conceded the chance of being a revealer of personality and possibly useful in guiding vocational choice, but emphasis was placed upon the large amount of nonsense existing in this field.

The experiments of Humiston and Forer were especially desirable in pointing up the explanation of why such nonsense is often given credence.

Care must be exercised in selecting a professionally acceptable expert and one should at least be wary of anyone not belonging to the appropriate national professional body. A good and sage source for referrals is either the local college or the welfare council.

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