Reading Character May Soon Be Possible

By Donald A. Laird

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Recent scientific studies indicate that there may be a way to read character from physique. But that way is not phrenology, and the difference between pseudo-scientific cults and scientific facts should be clearly understood.

During the Franco-Prussian War, a little more than a half-century ago, a young army surgeon was operating on a soldier with a skull wound which exposed the surface of the brain. Dr. G. Fritsch, the surgeon, experimentally applied a weak electric current to the brain surface and noted that this caused a twitching of some of the patient's muscles.

A short time later, Dr. Fritsch talked this remarkable observation over with a fellow scientific worker and together they performed experiments upon dogs. These experiments of Dr. Fritsch and E. Hitzig are scientific classics.

They were the first to discover that the left side of the brain has centers for controlling movements of muscles on the right side of the body. the brain was stimulated near the top of the skull cavity, movements of the foot and leg were observed. As the mild shocks were gradually moved toward the bottom of the brain, muscles of the trunk and fingers and arms were caused to twitch. Near the very bottom of the brain surface, twitches of the face muscles were produced.

This is commonplace information to many people now, but it took courage in 1870 to announce such observations, because the scientific world at that time was firmly set against any idea of mental functions being located No doubt. at any definite place. Fritsch and Hitzig were called phrenologists and even worse by their scientific confreres, but they stuck by their guns and laid the basis for modern brain surgery. Unfortunately their work was seized upon by a few fanatically inclined persons and used in an attempt by them to revive the old idea of phrenology. But in this attempt to bring phrenology back to life the two scientists had no direct part and to it they lent no encouragement.

The world of science in their day was reluctant to believe that stimulating the brain at any place would bring about definite muscular contractions

because they had been disgusted with the teachings of Franz Gall, father of phrenology. Gall had tried to start a science of reading character by studying the shape of the head and facial features. He became too enthusiastic, however, and led a group of his camp followers with such zeal that soon the French state called a halt to his activities, being fearful lest they would undermine religion. This was a rough half-century before Fritsch's observations during the surgery of the battlefield.

Gall started out as a careful scientist, but soon became oversold on his fundamental ideas and disregarded ordinary scientific precautions. He became an applied scientist too soon. He overlooked instances which contradicted his ideas, drew conclusions

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from an insufficient number of cases. and finally the practical urge led him on to the disastrous method of reasoning by analogy.

Many ludicrous inferences arose from his reasoning. A person with hair after the fashion of Lloyd George suggested remotely the appearance of the male lion and was assumed to have lionesque traits. Of course, anyone who wants to can have his hair trimmed in this manner.

Persons with prominent foreheads were given credit for intellectual brilliance, when we know that usually prominent foreheads are causd by Others with rickets in childhood. small eyes were given credit for serpentine qualities. Is it any wonder that scientific workers in the middle of the last cen- (Turn to next page)

I NTERPRETING week by week, I the latest developments in the various fields of science, this magazine attempts also to present its articles in the most pleasing and readable topography and the most convenient arrangement.

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All of the resources of Science Service, with its staff of scientific writers and correspondents in centers of research throughout the world, are utilized in the editing of this magazine.

Reading Character May Soon Be Possible—Continued



FROM LEFT TO RIGHT: ROBERT, JAMES, FRANK, RICHARD, EDWARD AND ORVILLE. Pretend that you are a physiognomist and try to decide which one of each of these three pairs of men is the more intelligent. The scientific findings are given on page 50

tury were suspicious of anything which smacked of phrenology in any way?

The work of Fritsch and Hitzig made phrenology appear still more ridiculous. At about the top and center of the skull, for instance, phrenologists had said that love for parents was located, but Fritsch and Hitzig found that the brain center at this location controlled the movements of the foot.

Still, nothing seemed to stop the progress of phrenology until it just naturally spent itself. Every critical study made of it revealed that in no detail could phrenological teachings be accepted as true. Yet it grew and schools were established and phrenological museums started.

Even now phrenology has not spent itself as a cult. Of course, you have seen the small tents at the carnival, fair, or circus with a painting of a large head divided into zones like a parcel-post chart hanging outside. Very few people take this side of phrenology seriously; it is entertainment pure and simple—unusually simple.

There is a school and museum of phrenology in the roaring forties in New York City. In a small midwestern village there is a correspondence school of phrenology. For forty dollars cash (add ten if by installments) you can take thirty lessons by mail, which will earn you the degree of M. P. S., which to the initiated means Master of Phrenological Science. If you raise the ante and take a few more lessons you can become a D. P. S.—Doctor of Phrenological A recent United States senator who was on important educational committees held an "advanced degree" from this school and read their magazine each month. A school superintendent in one of the largest Texas cities recently completed the course with "Books and calipers furnished free as needed, which you keep. Also a fine diploma when done."

It is out of consideration entirely

as a science, but not as a cult.

Phrenology some time ago tried to reform itself as physiognomy, by considering all physical features such as texture of hair and skin, shape of fingers, and general build, as well as merely the relations between different parts of the skull which phrenology had considered solely.

The person with a bronzed skin, fairly muscular, and with large bones as shown by big hands and feet probably takes on this appearance because of the activity of his pituitary gland. If such is the case, a person with this appearance in most instances will be difficult to fatigue and possibly have high ideals. Further than this we cannot go in bringing modern scientific knowledge to interpret this character, and it may be that we are not justified in going even this far.

But physiognomists have a whole catalogue of character readings for such a person which include the type he should marry, the occupation he should follow, and where his investments will be the most successful. You can buy magazines on the newsstands which contain advertisements of those who will read your character if you send them a photograph; these simply show that Barnum was right, and not reading character from physique.

How to read character from handwriting is the subject of a book which had a tremendous sale not so long ago. It appeals to the imagination to be able to double-cross your friends and read their character from the notes they write. I do not worry about really giving away any inner secrets myself by the way I write, for I am familiar with careful studies made of claims of graphologists which have revealed their complete inability to tell even the sex of the person writing. It does seem reasonable to suppose that the person who writes with a firm hand—or perhaps it is a blunt pen!—has determination, or that the person who crosses his "t's" a quarter of an inch too late is slovenly, but we must remember that this is reasoning by analogy and does not give trustworthy evidence about the character of the writer. It does indicate, however, gullibility on the part of the person who believes in it.

To the scientist, phrenology, physiognomy, graphology, and the other ologies dealing with character reading are of little concern, except as widespread superstitions. I think these are vicious superstitions, though, since they are blocking the road for real progress of scientific discovery in the field.

There are a few modern Fritschs and Hitzigs, who are courageous enough to brave being called "reincarnated phrenologists", who are doing research of the first water in the quest of something which may make possible a truly scientific character reading. Here and there they have opened a way through which we see the glimmer of light which encourages many of us who are hopeful that perhaps we may be on the verge of a real science in this field.

Of three things are we certain: No alleged method of character reading is trustworthy in the least degree. There are positive indications that we may shortly have real insight into character reading. When we do have this insight it will not be as simple as fraudulent books and articles on it make believe.

Fraudulent, but interesting, schemes for reading character will always have in their favor that they are so exceedingly simple that anyone can use them after a few hours' reading. The correspondence course in phrenology to which I referred, for instance, after thirty lessons-by-mail, prepares the student "to (Turn to next page)

Reading Character May Soon Be Possible—Continued

give lectures and charts, begin the practice of the profession, and make money."

It is from studies of people with mental breakdowns that the newer scientific knowledge about how appearance may present clues to deeper mental makeup is developing. There is little strange or new about the actions and thoughts of people with disordered minds-although the average person suspects something very different. In practically all instances a disordered mind is like any normal mind that is exaggerated in some respects. It is important to appreciate this fact to understand how we may be able to learn about the character of you or me from the wards of a state hospital.

We all have moods; some days we are right with the world and everything is going swimmingly, but other days things seem blue and we find it difficult to keep the pep and enthusiasm and cheerfulness of yesterday. If you can imagine this change in moods exaggerated perhaps a thousand times, you will know how the patient with manic-depressive mental disorder feels and acts.

A short time ago I met a famous American sculptor whose works are perhaps pictured on the walls of your public library or schools. I met him in the ward of a mental hospital. He was sitting on a chair, a picture of profound melancholy with his frame bowed and his hands clasped desperately between his knees, while tears trickled down the cheeks of his mournfully lined face. It was an unexplainable spell of the blues, but much more deep than those you or I usually experience.

The following day I saw him again, but he had changed so that he was

1 Colgate hinversity
2 Colgate University
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WHICH OF THESE LINES were written by women? The answer is on page 50

scarcely recognizable. His face beamed happiness. He was so peppy that the hospital physicians were afraid he might break the chair when he sat down with a gréat, happy thump. He talked incessantly and hilariously. If his wife had seen him then I am afraid she would have suspected that he had been drinking and had a happy jag.

It has been discovered that the manic-depressive patient, such as this well-known sculptor was for a while, has a type of body build different from that of most other mental patients, and different from that of the average man. Some "average men" have a body form which approximates closely that of the manic-depressive person, and it has been discovered that in most instances these have a mental make-up which is similar to that of the manic-depressive, but the changes are not so marked.

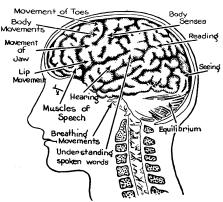
These people are energetic, emotional. Baldness and grey hair is common among them.

The type of build reveals a relatively large trunk volume in proportion to limbs. They are "well fed" people, although not necessarily fat—they may have just a long trunk and short legs rather than a pouchy fat trunk. They are called of macrosplanchnic build, although somewhat synonymous terms for this constitution are: brachymorphic, megalosplanchnic, pyknic, cyclothymic, or brachyskelic. The wide variety of terms for this build reflects the unsettled state of research in the field.

A simple measure which approximates accuracy for this build is to divide one's height in inches by his weight. If the height-weight index this yields is below .42 a man is probably of macrosplanchnic build, and probably has the complex traits found in the majority of macrosplanchnics. If the height-weight index of a woman is below .45, she is probably macrosplanchnic. Women are more macrosplanchnic than men, and everybody is macrosplanchnic in youth.

Dr. George Draper of New York City has found that this type of constitution is closely associated with gall bladder disturbances. This does not mean, of course, that all macrosplanchnics are doomed to gall stones and manic-depressions — it simply means that very seldom are gall stones found except in this type.

Dr. Elida Evans has recently reported that cancer is rarely found except in this build, and her observa-



THE REAL BRAIN CENTERS do not correspond with the phrenologist's "bumps" at all

tions have been confirmed in essence by Dr. J. H. Cassity, formerly of Saint Elizabeth's Hospital in Washington—yet one of my friends who is distinctly not of this build was recently operated upon for cancer. Exceptions are always to be expected in a field in which definite knowledge is still being laboriously accumulated.

Let me introduce you to another interesting mental and constitutional make-up. Do you know a child who would rather read a book than play vigorously and emotionally with other children—especially if it is a book of imaginative stories? Or perhaps you know some grown-ups who like to be by themselves, who are hard to get acquainted with, and who are bookishly impractical? They are "drawn into a shell."

If they draw more into their shells, talk scarcely at all, and live in their imaginations, soon they begin to believe what they imagine and hear people saying bad things about them where there is no person within earshot, or think they have great property, as the imaginative child imagines some paper clippings in a cigar box are treasures, then we have a mental disorder known as schizophrenia.

Some time ago I visited a distinguished minister who was a patient for a while in a hospital when he was acting abnormally, due to schizophrenia. He was so completely engrossed in his imaginings that he apparently did not see me. He would smile from time to time as some pleasant mental picture was formed, and would move uncomfortably at times when the mental pictures were not pleasant. Once he turned and talked to two people at his left, although he and I were alone in the room and I was on his right. Imagination gone (Turn to page 49.) riot!

Reading Character—Cont'd

The same researchers have discovered that in most schizophrenia patients there is also a distinctive body build. This is usually the exact opposite of the macrosplanchnic.

Long limbs with a relatively small trunk volume is their characteristic. They are long-legged, thin people in general, although a fat person may have such long legs and arms that they throw him into this group. They are more intelligent as a rule than macrosplanchnics, and are more easily fatigued and more sensitive to pain.

This is the microsplanchnic build, although it sports many names which means much the same constitution, such as, dolichomorphic, asthenic, schizoid, hypovegetative, hypoplastic, and dolichoskelic.

It is more characteristic of men than of women. A man with a height-weight index above 0.53 is microsplanchnic, while a woman with an index above 0.58 has this constitution in most cases.

Dr. Draper has found that this is the gastric ulcer type, most patients with this ailment coming from this constitutional make-up. They are also especially prone to tuberculosis, as well as having their distinctive mental make-up in most cases.

The tape measure and bathroom scales are a fair index of type of build, but are not completely trustworthy. A series of twelve measurements made with delicate instruments is essential to get an accurate morphological index, but the heightweight index approximates this closely in many cases.

From childhood to old age we all pass through a transition in these constitutional features. In emotionally pleasurable and energetic childhood we were more macrosplanchnic than we are at maturity, and as old age draws over us we become more inclined toward the microsplanchnic and live more in the realm of fancy as well as having more trouble with what we should eat.

As we deviate somewhat from the average between these extreme types in build so are we likely to have somewhat distinctive mental traits, without being in any sense abnormal in either build or mental makeup.

Work which has been under way for three years in the Colgate Psychological Laboratory, under the successive leadership of Robert C. Little, Philip Payne, and now J. C. Anderson, indicates definitely that the college man who (Turn to next page)

South Africa Dreads Corn Borer

Entomology

The European corn borer, which has become a scourge in America, is being guarded against in the Union of South Africa with all the vigilance that would be used to stop the coming of the Black Plague or an invading army. It has not yet succeeded in gaining a foothold in South Africa, and government scientists do not propose that it shall do so.

One bad scare occurred in Johannesburg something over a year ago, and entomologists are still watching the neighborhood of the threatened outbreak. In South Africa, as everywhere else, housewives need brooms, and broom factories exist to supply the demand. Broom corn has to be imported from Europe and South America, because the locally raised crop is not sufficient. Inspections of baled European broom corn have shown the presence of the borers in the stalks, just as they were in the stalks of European broom corn imported into Canada and the United States some years ago, from which the present plague there got its start.

In the yard of a Johannesburg broom factory a few chance stalks of broom corn sprang up from stray seeds, and these were found to be infested with young borers. They were promptly obliterated, and every kitchen garden for blocks around was inspected inchwise by frantic entomologists. So far as known at present, not a single borer escaped the search, but the watch will have to be kept up for several years to make sure the clean-up was complete.

In the meantime, the Union has passed stringent inspection regulations for imported broom corn. None may be brought in unless it has been freed of all stalks large enough to harbor a borer. In the factories the bales are stored in mothproof rooms kept rigidly under lock and key, and the few workmen who have access to them are put through the same elaborate ritual on leaving as employes of a mint.

South Africa already has one pest in its cornfields, which it considers more than sufficient. This is the stalk borer, a creature related to the European corn borer and having much the same habits. Recommendations to the South African farmer for its control are reminiscent of those now being published in the American corn belt for the control of the European corn borer.

Science News-Letter, July 28, 1928

Studies How Women Walk

Anatomy

More than half of the women of the present day walk with their feet toeing straight ahead, Indian fashion. About 41 per cent. toe out after the old dancing school pattern. Only about 5 per cent. of the women you see on the streets are pigeon-toed.

These are the conclusions of Dr. John W. Crist, of Michigan State College. Dr. Crist gathered his statistics by standing on busy street corners during his spare time, and unobtrusively recording the walking habits of some 11,000 women in various cities of the United States.

Reporting his investigations in the forthcoming issue of the Journal of Heredity, Dr. Crist states that the ancestors of the human species walked on all fours, and their feet must have curved inward to help in grasping trees, as the apes' feet curl. Babies are inclined to turn the soles of the feet toward each other, and many babies can even bring the soles of the feet together. They soon lose this pigeon-toed tendency, however, and, so far as women are con-

cerned, the feet even swing past the straight position and tend to turn out in many cases. For some of his figuring, Dr. Crist found it necessary to estimate the ages of feminine pedestrians, making due allowance for facial camouflage. Among the women that he set down in the "over 40" list, about three-fourths toed out. But this great increase in toeing out among older women is not due to age, he later concluded. Weight is the more important factor. As heaviness increases with age, the feet respond by turning outward.

Eighty per cent. of the heavily built women over 40 toed out. But only 40 per cent. of the light weight women over 40 turned out their toes fan fashion

Whether this position of the feet is more efficient in carrying and balancing the heavy and unequally distributed load of a heavy woman might be investigated by a physicist, Dr. Crist suggests.

Science News-Letter, July 28, 1928

Strange Tree With Many Uses

ALEXANDER PORTEOUS, in Forest Folklore, Mythology, and Romance (Macmillan):

In Africa, particularly in Senegal, and in some of the islands not far from the African coast, grows the Baobab (Adansonia digitata). all the trees in the world it is supposed to be the largest as regards the thickness of its whitish, conical trunk, which, however, rises only to a height of about fifteen feet before branches, while its circumference is often more than one hundred feet. From the summit of this trunk numerous thick branches, from thirty to sixty feet long, branch off horizontally in all directions, and, as they gradually become shorter farther up the stem, the tree takes the appearance of a gigantic dome. The leaves resemble the fingers of the human hand, from which the naturalist Adanson gave it the specific name of digitata, its generic name being his cwn. The blossoms are of a proportionate size, are of a snowy white, and are regarded with a peculiar reverence the moment they burst into bloom. The fruit, large, oval, and resembling a cucumber, is a great favorite with monkeys, the tree being sometimes called Ape's-bread Tree, Monkey's Bread, and Ethiopian Sour Gourd. Adanson stated that these trees grow in plains of barren movable sand, and where the water of a river had washed this sand away the roots were left exposed. These roots, he said, measured over 110 feet in The short, thick trunk is necessary to support the overwhelming superincumbent mass of leaves, and seen from a distance the Baobab resembles a small forest rather than a single tree. Under the vast shadow, often 450 feet in circumference, cast

In early times the Greeks used Phoenician vessels to carry their cargoes overseas.

Because of the sugar content of honey, bacteria harmful to health do not multiply in it.

Specimens of the extinct Labrador duck are rarer than those of the famous great auk.

The boundary between the United States and Canada is to be marked on all the international bridges between the countries.

by this tree, the negroes enjoy repose, and often find refuge from the The negroes of Senegambia storm. are said to worship these trees as divinities. When time, in the course of ages, has hollowed out the stem of one of these noble trees, it often becomes the abode of a negro family. Sometimes the hollow forms a place of amusement, sometimes a prison, and one tree is known in Senegambia which has been converted into a Council Hall, the entrance being covered with appropriate sculptures. Another use to which the negroes put these hollow trees is for the burial of their poets, buffoons, and musicians in the cavity. They consider them to be inspired by demons, so they will suffer the bodies neither to be buried in the earth nor thrown into the sea, lest the fruit or the fish should perish. Thus, to avert their doing harm to land or sea, they are placed in these hollows where they soon dry up. As these trees commence to decay downwards at the point where the branches spring forth, the hollow space thus formed fills with water during the rainy season and forms an excellent cistern, the water being kept cool by the overhead foliage. Those villages which are fortunate enough to possess such a tree sell the water to travelers. Many of these trees in Senegal are computed to be about five or six thousand years old. In one of the Cape Verde Islands Adanson found a Baobab bearing in its interior an inscription which had been traced there by the English three hundred years previously. From that, and by measuring the stems of many of the trees, he calculated that the most vigorous specimens might be at least five thousand years old.

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Citronella oil is obtained from a grass cultivated in Ceylon and Java.

There are more than half a million domesticated ostriches in South Africa.

Some native tribes of South America believe that moonlight is bad for

A survey in New York state indicates that there is 60 per cent. more sickness in villages than on farms, largely because there are more older people in the villages.

Reading Character—Cont'd

is macrosplanchnic is most likely to be extroverted; that is, somewhat of manic-depressive makeup. In contrast, most of the microsplanchnic students are introverted or, in other words, slightly schizophrenic in mental make up.

All the experimental trends indicate that for some outstanding but complex mental make-ups there are closely associated body builds or constitutions, which are also complex. They do not indicate any simple and infallible way of reading the character of our enemies, or supposed friends. But in the hands of a skilled person even the present findings can be of tremendous helpfulness in laying out a program for mental hygiene for an individual or in indicating precautions each individual should follow to maintain good physical health.

Perhaps within the year some modern Fritsch will announce to a waiting scientific world the results of researches which will simplify and strengthen the findings I have outlined for you. While I am not expecting any such announcement, the progress of the world of science has been so astounding within the present decade that I refuse any longer to be of a closed mind.

Of a closed mind.

NOTE. In the three pairs of photographs on page 45, James is more intelligent than Robert, Frank is more intelligent than Richard, Orville, is more intelligent than Edward. And just to show how clothes may alter judgment, Robert and Edward are the same person. Lines 1, 2, 5, 7 and 9 of the samples of handwriting were written by women.

And as for the woman on the cover page—"she" is a railroad shop woman as he appeared in a church play. Undoubtedly, "she" is not to be trusted!

be trusted! Science News-Letter, July 28, 1928

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