The Face of Man

This book will help you if you are interested in

SUMMING UP PEOPLE

It will help you to understand objectively the temperament, idiosyncrasies, abilities and potentialities of those around you—your family, friends, business associates—and to anticipate their behaviour in almost any circumstances.

HUMAN NATURE

What has this book to do with the study of human nature?

The answer is that it concerns the indivisible bond between physical appearance and personality. It outlines the kind of mentality and disposition which might be expected to accompany a certain configuration of the body in general and *the face in particular*, so that 'types' may be easily identified.

WHY FACES ARE REVEALING

The Face is an Index of Character. Glandular conditions basically determine personality and at the same time display their effects in the structure of the human face. We look at the other person's face all our lives without realizing that the glandular influences which have shaped it have also shaped the character that lies behind it. To study one is to begin to understand the other.

The author gives a series of fascinating close-up studies of glandular types followed by an analysis of methods of observation and a list of physical characteristics to guide one in identifying different kinds of personality. His conclusions are in the form of answers to a whole series of questions which will naturally occur to the reader.

It is not a medical text-book! Although the author's subject is based on sound medical research, it is explained in language easily understood by the inquiring layman.

(*continued on back flap*)

18s. *net.*

(*continued from front flap*)

In the author's opinion the human sciences lag far behind in an age where 'progress' seems more bent on the invention of destructive forces than the understanding of human character which is the mainspring of all the world's efforts and problems.

ABOUT THE AUTHOR

Mr. Penry first tested the reliability of his conclusions twenty years ago when he began to base his selection of staffs and the allocation of their duties less on testimonial than on his own method of assessing character and potential ability. The results proved excellent. Since then he has travelled widely amassing a wealth of material on his subject. *The Face of Man* sums up his findings.

He is well known for his stimulating articles in the leading journals of the National and the Overseas press, and has provided readers with analyses of character and personality.

He has appeared on Television and lectured not only in Britain, Canada and the U.S.A., but also on the Continent and in East and West Africa.

Popularly written, the book is fully illustrated with charts, line drawings, and many half-tone plates.

Dr. M. F. Sanjana
9-2-53

Dr. M. F. SANJANA
"Goolestan"
37, Cuffe Parade,
Bombay-400 005.

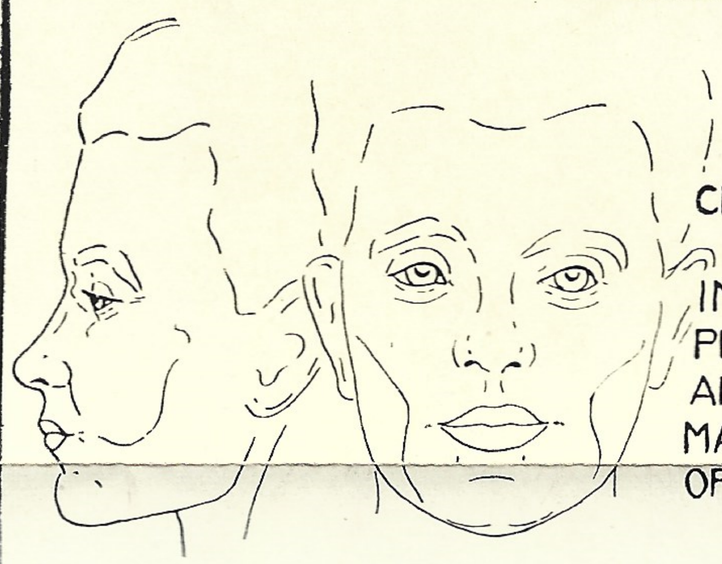
CHART OF GLANDULAR TYPES (INHERENT)

THYROID — SENSORY SCALE

ADRENAL — MOTOR SCALE

HIGHEST GRADE MENTALITY. PERFECT BALANCE OF SENSORY AND MOTOR POWERS

HIGHEST GRADE MENTALITY. PERFECT BALANCE OF MOTOR AND SENSORY POWERS.



CREATIVE, IMAGINATIVE MENTALITY. INTELLECTUAL PROPENSITIES. CONTROLLED ARTISTIC IDEALISM. MARKED SENSITIVITY OF BODY AND MIND.

2 — EXCELLENT PITUITARY INFLUENCE — 2

EXCELLENT BRAIN CELLULAR DEVELOPMENT AND STIMULATION. CONTROLLED PRACTICAL IDEALISM. ACUTE PERCEPTIONS. FINELY DISCIPLINED FORCEFULNESS OF BODY AND MIND.

GOOD GENERAL DEVELOPMENT OF BRAIN AND PHYSIQUE. SPONTANEOUS ENTHUSIASMS. SENSORY ALERTNESS. SOCIABLE, UNAGGRESSIVE DISPOSITION.

4 — GOOD PITUITARY INFLUENCE — 5

GOOD GENERAL DEVELOPMENT OF PHYSIQUE AND BRAIN. SWIFT, WELL-COORDINATED PHYSICAL MOVEMENTS. MENTAL ALERTNESS AND PRACTICABILITY. MATERIALISTIC OUTLOOK. AGGRESSIVE INCLINATIONS.

FAIR DEVELOPMENT AND CONTROL OF PHYSICAL AND MENTAL FACULTIES. GREGARIOUS NATURE. MENTAL AND MANUAL IMPRACTICABILITY.

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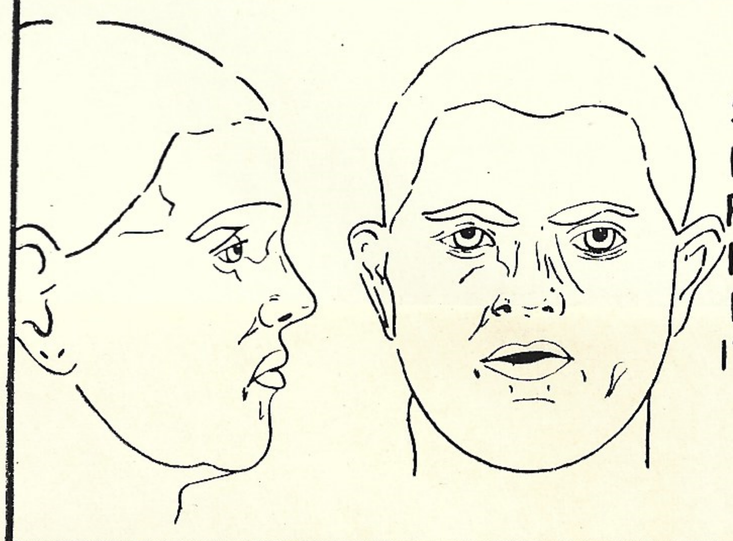
FAIR DEVELOPMENT AND CONTROL OF PHYSICAL AND MENTAL FACULTIES. APTITUDE FOR SEMI-SKILLED MANUAL TASKS. BRUSQUE, UNIMAGINATIVE NATURE.



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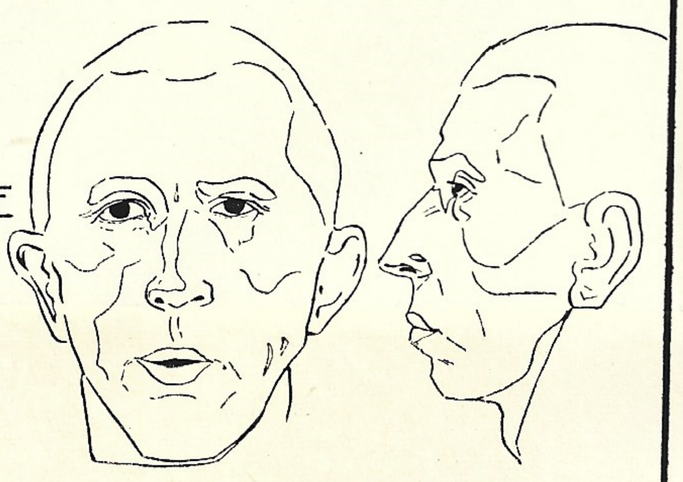

HARMLESS IMBECILITY.

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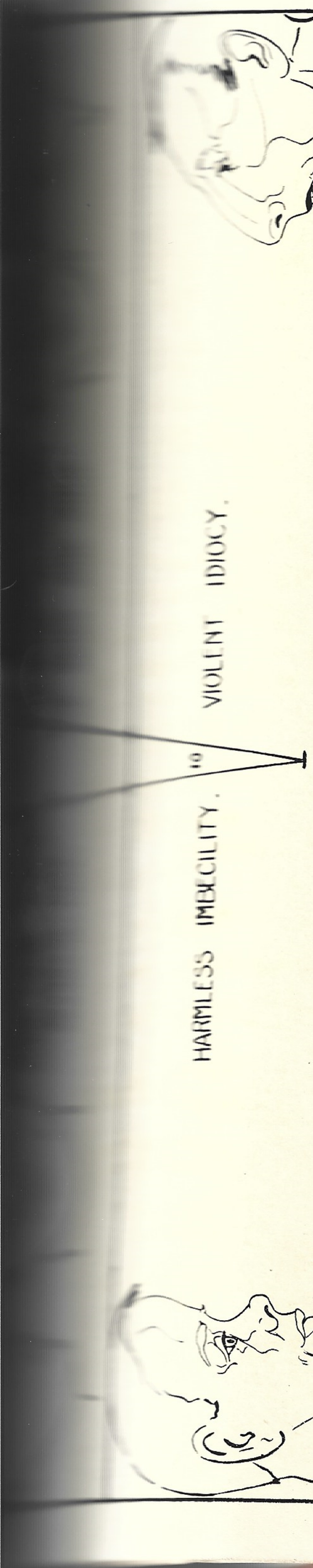


THE FACE *of* MAN

A Study of the Relationship Between Physical Appearance and Personality

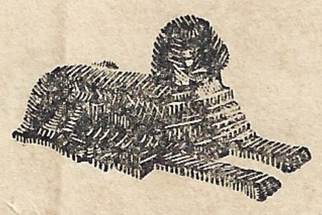
by

JACQUES PENRY

assisted by

ISOBEL RYAN

Illustrations by Jacques Penry



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To my good friend, Royden, for his unfailing patience
and staunch encouragement through the years.

CONTENTS

The Face of Man

A Study of the Relationship between Physical Appearance and Personality

by JACQUES PENRY

★

Prof. H. M. RELTON, University of London, says of THE FACE OF MAN :

Each chapter is, I think, singularly devoid of wild theorizing or vague guessing. On the contrary, I am impressed by the author's judicious and sober handling of his data, including that on mixed types. For the average thoughtful reader, this is just the thing most suitable as an introductory study.

He gives us a most stimulating analysis of type observation and identification, and a list of physical characteristics which he thinks should be helpful in assisting the reader to identify the majority of main types. I am sure that this will prove to be a most useful and suggestive guide to those wishing to experiment or pursue the subject further.

The book throughout is helped immensely by about eighty photographs, drawings and charts which are most impressive, elucidating, and, I think, in places, fascinating, as studies. The closing chapter is excellent in its moderation and sanity of outlook.

Some other testimonials from Mr. Penry's readers :

"I must confess with an open mind, that as the years have passed, everything you forecast such as characteristics and abilities have been and are being fulfilled. . . ."

"I know you would like to know that what you said has come true."

"It is very accurate and describes all. . . ."

"Your observations are amazingly accurate. . . ."

". . . canny and amazingly true description."

★

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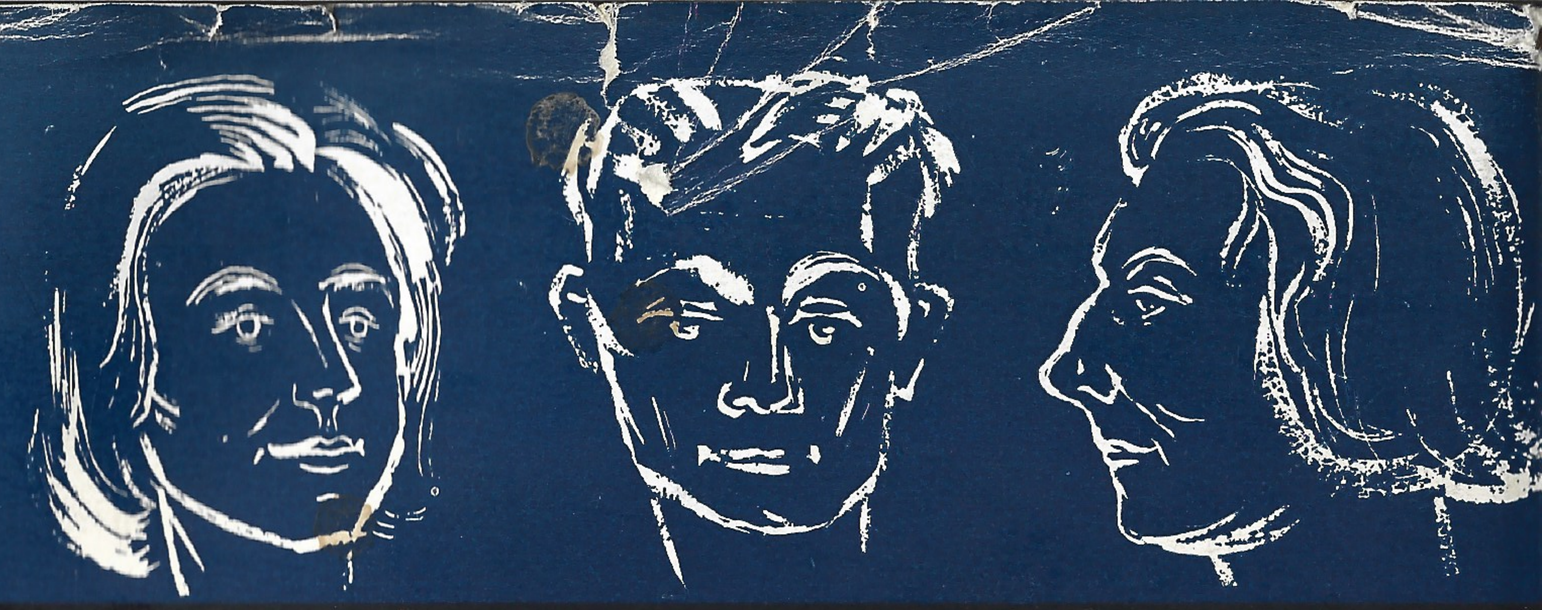
JACQUES PENRY



The FACE of MAN

The FACE of MAN

JACQUES PENRY

RIDER

CHARTS AND ILLUSTRATIONS

CHARTS AND ILLUSTRATIONS

HALF-TONE PLATES

AUTHOR'S NOTE

APOLOGIES AND AFFIRMATIONS

It must be clearly stated here that this book contains no easy recipes of modern alchemy by which people may achieve overnight character transformation, physical strength or beauty, material success or social popularity. It is not a purely psychological treatise nor has it anything to do with the shadow world of metaphysics and rarified abstractions. Neither is it intended to be a medical thesis; that is to say, it is addressed principally to the inquiring layman in a language which so far as possible simplifies the technicalities of the 'clinical' vocabulary.

What then has this book to do with the study of human nature? The answer is that it primarily concerns the complex relationship between physique and personality, and endeavours to show how body and mind affect and are affected by each other. The intention has been to outline as clearly as possible the kind of mentality and disposition which might be expected to accompany a certain configuration of body, so that as a step to wider understanding, 'types' may be identified. Since this is not a medical text-book it has been necessary for clarity and readability (in exposition of the physical influences on the particular types) to highlight only the dominant chemical factors. Likewise, and again in the interests of clarity, no attempt has been made to use the modern psychologist's terms which often confuse rather than illuminate discussion on the peculiarities of human character and conduct. No magical panacea for the cure of moral or social ills has been offered here, although the general means have been outlined by which some of these closely related problems might with advantage be approached.

Most books bear a message or a moral; that contained herein is, in brief, a plea for wider tolerance, for a better realization of what constitutes human personality, and what lies behind the weaknesses and strength of individual character. It is useless to impose a system of ethics upon any body of people unless it is first understood what kind of people are concerned. And it is as useless to mete out 'psychological' treatment to those whose troubles are basically, if not obviously, physical, and to believe that when psychological tactics fail there is no hope.

This book is addressed to people who prefer to think for themselves. It offers them the means by which they may comprehend and view with greater objectivity the idiosyncrasies and potentialities of those around them. Above all, it does not decry the efforts of the many sincere workers who seek to contribute to the study of mankind according to their own lights and systems, but rather suggests that the efforts of these must be misdirected and wasted unless the bedrock importance of the physical-personality link is taken into account.

CHAPTER I

THE STUDY OF HUMAN NATURE

> What a piece of work is man! How noble in reason! How infinite in faculty! In form, in moving, how express and admirable! In action how like an angel! In apprehension how like a god! The beauty of the world! The paragon of animals! And yet, to me, what is this quintessence of dust?
>
> HAMLET.

> Nothing has a greater appearance of probability than the conformity and relation of body to mind.
>
> MONTAIGNE.

THERE is no simple approach to the study of human nature. Since all men and women share fundamental (and therefore imperfect) human qualities, none can set himself apart as an oracle. Some, it is true, are endowed with a wisdom permitting them to view humanity with a breadth and clarity of vision as rare as it is illuminating, and to propound theories ranging from the exaltedly mystical to the severely medical. However, for the most part, the student of human nature must base his conclusions upon the physical data which he finds about him in his daily life. His first essentials are an inquiring mind, an observing eye, freedom from prejudice and a refusal to be completely awed by the infinite perplexities of the subject. Too often he is halted and confused by the multi-syllabled words which make up the weighty treatises of many eminent psychologists; too often he is confounded by abstruse metaphysical diction. The study of human nature, as treated by the experts, seems to him bewildering and scarcely related to the lives of the ordinary men and women with whom he associates. Yet it is the variety and diversity in the conduct of 'ordinary' men and women which must concern him most. Prompted by his natural curiosity he attempts to analyse the behaviour of his friends and acquaintances. Stirred by the evidences of widespread intolerance among men, he seeks to clarify for himself the misunderstandings which so easily arise out of prejudice and ignorance.

Man's foibles, his eccentricities or staid behaviourisms, his unexpected nobilities and more expected perversities, make him

other. Some schools of thought refer to this relationship as mind-soul, implying that no distinction is necessary, and *Chambers' Dictionary* appears to bear this out by giving the following definitions:

Soul: "that part of man which thinks, feels, desires, etc.: the seat of life and intellect: essence: internal power: energy or grandeur of mind: a human being: a person. . . ."

Mind: "the faculty by which we think, etc.: the understanding: the whole spiritual nature: memory: choice: intention: thoughts or sentiments: belief: cast of thought and feeling."

Some would have it that mind, soul and body each has its separate orbit, the soul whose sphere is spiritual being only vaguely and indirectly connected with the body's mechanical functionings, but definitely in control of the mind—the mind, the unseen but feeling, thinking, controlling part of man, in charge of the body's behaviour—the body, of the earth earthy, a mass of muscle, nerve, bone and flesh, merely a performer with soul and mind as spectators. That, at least, is the general idea, and like many general ideas it lacks form and logic.

The most common belief is that the soul is that intangible essence of all that is man, his spiritual self in fact, whereas the mind is an autocratic, complicated entity from which comes thought and reason. According to this idea, the body is simply a field of operations, or a dwelling place for both soul and mind. And a temporary dwelling place moreover, since the body of man must die, but the non-physical elements in him may live on.

It is neither irreverent nor irrelevant here to ask: "If the soul is a separate entity residing in the body, what is this obscure property's shape, and how does it merge with the human physical elements? Is the brain its abode, or has every individual a soul corresponding in character and proportion to his own body, hand to hand, foot to foot: a spiritual, invisible 'shadow'.

Our difficulties would be manifold if we should attempt to prove by science that a soul exists, or if we attempted to hazard a detailed description of its composition. Science can only assert that from test-tube evidence, the soul does not exist. Which brings us to the query: "What is the soul? What is its relation to the body? Is it part of the mind, or a second 'mind', or a quite separate and different entity? Has man then three distinct parts to his nature: a body, a mind and a soul? And what are the main functions of the soul in the general scheme of man's daily life and existence? Is it influenced by the body, and does it, as the mind is supposed to do, influence the body?"

In considering these questions, and without attempting to discuss the tenets of Christianity, it must be in order to refer to the writings in which it is probable that the first reference was ever made to the soul. In the second chapter of Genesis one reads that after the Lord God made man with his hands, "He breathed into his nostrils the breath of life, and man became a living soul". A soul was not given him in order that the inorganic body might spring into life. Nor is it suggested that the soul was separate from the body and that it had life before entering the body. The plain statement is that man became a living soul and the implication is that he was a dead soul before the breath of life entered his nostrils.

Some students of the Bible hold that this 'breath of life' actually constituted the soul. Yet can we accept this idea of man's soul being indrawn and exhaled as man breathes? It is also generally assumed that the soul of man is that quality or attribute which enables him to rise above the animal, gives him inspiration for thought and purpose, and the gift of free will. Yet again, in another part of the Bible is found a passage of which the conclusion is: "and all the souls that were in the sea died". Taken quite literally, and with the understanding that only man has a soul, one might for a moment imagine that the reference was to living souls in the seas' depths, a race of men apart. Or, from a wider standpoint, the implication may simply be that all living creatures of land, sea or air, by virtue of their very existence, possess or rather *are* souls.

Moreover, when considering the text: "man became a living soul" and that which says: "all the souls that were in the sea died", the implication would appear to be that at death body and soul die as one. The Bible further strengthens the suggestion that the soul is not immortal, by saying in another passage: "The soul that sinneth it shall die."

Is not the soul, in reality, man himself, the sum of all his mental processes, his evils and his virtues? Are not soul and man inseparable both in life and death, because soul and man are one and the same? The Scriptures would indicate this, and certainly science would support it.

In all the discussion that may well wrathfully circulate about this vexed question, that which concerns the origin and whereabouts of the soul is primarily a stimulant to differences of opinion. Apart from the Bible there is no record of its origin. In an attempt to render the intangible concrete, the Greeks considered that the soul's domain was in the tonsils—Descartes, the pineal gland—

the South Sea islanders, in the throat—and Masais, the leg. Our primitive forbears believed that anything beyond their physical understanding must be attributed to spirits or souls, but these were considered mostly as disembodied elements whose nature was mainly antagonistic and evil.

The theory of evolution (with nonchalant divisions of time into aeons, and such casual references to 'stages' as a station-master might use in speaking of the arrivals and departures of trains) elaborates on a grand scale the advance of man from a protozoa state. However, the origin and progress of the soul (if indeed it is a kind of metaphysical twin to the body) was not accounted for along the same lines. Assuming the basic truth of the evolution theory, and at the same time believing in the soul as an integral part of man, one must naturally inquire: "At what stage in human development did the soul make its first appearance?" Is it conceivable that each protozoa had a soul, or plausible that at some stage in the dark aeons of time when possibly the protozoa had reached a half-way stage in its evolution towards man, that a soul 'happened', or was accorded to it? The theory of evolution does not account for the presence of the soul at any time during man's development. Yet still the idea that man has a soul, persists. Psychological writers have much to say about this. The theories held by our primitive forefathers, based upon ghost beliefs, that there was a duality of body and soul, each independent of the other, are the pillars upon which modern psychology rests. But now, instead of the 'body and soul' grouping, we read 'body and mind'.

There are many definitions of psychology: 'science of the soul', 'science of the mind', 'science of consciousness', 'science of behaviour'. The number and variety of schools of psychology increases at such a rate that it is practically impossible to keep pace with them, or even to list them all. And even the most determined follower must falter and lose heart when enmeshed in the private mysteries of the psychologists' remarkable, inbred vocabulary.

Now, to stand clear of psychological jargon, let us assume simply that the soul exists and is independent of the body. Unquestionably a blow on a man's head will bring about a state of temporary blankness or unconsciousness, lasting from a few minutes to several days. Yet a much harder, fatal blow, according to psychology, means complete and permanent 'consciousness'. Many people assert that when the body dies, one's state of knowledge is made perfect. Why then should temporary eclipse bring about no such illumination, whereas permanent extinction of the body brings rewards of such great realization?

The 'emergence' theory, emerging from the fertile imagination of George Henry Lewis, an early psychologist, suggests that the mind (or soul) is the resultant or 'emergent' of the combination or co-operation of two entirely different and separate factors. The principles of this theory can best be explained by Lewis himself in *Problems of Life and Mind*:

> "Although each effect is the resultant of its components, the product of its factors, we cannot always trace the steps of the process so as to see in the product the mode of operation of each factor. In this latter case, I propose to call the effect 'Emergent'. It arises out of the combined agencies, but in the form which does not display the agents in action. . . . Each agent, indestructible and independent, has its own individual value; and the effect or combination of these agents has two modes; in the one case we have an addition or mixture; in the other a combination, with an emergent. Thus when we see one motion followed by another . . . we trace such parity in the two events, and one is seen to be so absolutely the equivalent of the other, that we seek for no outlying agent, no extra power; the one event is said to be dependent on the other. . . . It is otherwise with emergents, when, instead of adding measurable motion to measurable motion, or things of one kind to individuals of their kind, there is a co-operation of things of unlike kinds. Add heat to heat, and there is a measurable resultant; but add heat to different substances, and you get various effects, qualitively unlike; expansion of one, liquefaction of a second; crystallization of a third, decomposition of a fourth. . . . Here we have various emergents, simply because in each case there has been a different co-operant; and in most of these cases we are unable to trace the process of coalescence. The emergent is unlike its components in so far as they are incommensurable, and it cannot be reduced either to their sum or difference. But, on the other hand, it is unlike its components, or more strictly speaking, it is these; nothing can be more like the coalescence of the components than the emergent which is their coalescence. Unlike as water is to oxygen or hydrogen separately, or to both when uncombined, nothing can be more like water than their combination, which is water. We may be ignorant of the process which each passes through in quitting the gaseous to assume

the watery state, but we know with absolute certainty that the water has emerged from this process. To fill up this gap in our knowledge by the word 'power' or 'causal link' is illusory." (Vol. 2.)

If the above principle is true and is applied to the soul or mind, it means that two or more material ingredients are combined and lo, the soul or mind emerges. What are the two co-operants in this theory? The only answer would be, if one were to believe in an independent mind or soul—that the body chemistry laboratory has mixed certain hormones with nerve, muscle, brain cells and tissue, and the 'emergent' or 'resultant' is the soul or mind.

Henry Maudsley in his book *Body and Will* sums up the argument briefly:

> '"'Tis I, compact of nerve, muscle, gland, bone, who choose to resolve to do or not to do on each occasion, not any part or detached principle or sublimed essence of me. From his holiest feeling and his loftiest aspiration, let him torture himself as he will, the most saintly person cannot detach the influence of the most despised organ of his body. The creation of an abstract will that is supposed to execute the particular volition and its further fashioning into a spiritual entity is an inference or hypothesis, not a direct deliverance of consciousness; be it necessary or be it gratuitous, that is its undoubted character."

Through these words Maudsley, like so many other eminent medical-scientific research workers, shows his belief in the complete union of mind and body, and in the fact that the group word 'I' must mean physique and psyche, body and personality, brain and mind, all being inseparably linked—incapable of division.

Many people, despite the evidence before them, firmly believe that the mind and body exist separately, the mind being the main dictator of the body's actions. These people will assert their conviction that through 'willpower' or 'mind over matter' prodigious feats of energy and endurance may be performed by the body, and that in fact the body may be disciplined by the mind to such an extent that all physical actions may be regulated, co-ordinated or stimulated to the highest degree. The adherents of one religious group affirm that physical disease or illness exists only when the mind permits its recognition. Yet this theory loses its significance

when it is realized that a mind cannot function without a physical brain though a brain can exist and function without a mind! The mind is not a *separate entity*, but a phenomenon arising directly out of brain function, which, in turn, is dependent for health upon other organic functioning. Therefore the mind is much more influenced by than influencing the physique, and can never be expected to exert an impartial or omnipotent power.

Any doctor can confirm that, deprived of sight, hearing, speech and olfactory mucus membrane, and any outside sensations, a man will have no mind whatsoever. Yet in so far as physiological composition and cellular health are concerned, his brain may be normal.

Scientists have done much to uncloak the mystery of the mind. They have found that from all sensations—sight, hearing, taste, smell, touch—received from the various parts of the body, impressions are made and recorded in the brain cells. Like the rest of the body, the brain is fearfully and wonderfully made. It combines all the functions of an intricate receiving, recording and relaying electrical machine. It receives sensations which, according to their intensity, are recorded faintly or deeply in the brain cells. Depending upon the body's requirements or demands, which are also signalled by the nervous system, relaying is done by the brain (again via the nerves) in the form of speech and movement. All the sensations recorded in the brain can be termed intelligence or 'mind stuff'.

An infant is born with a brain, but without a mind. During life the brain receives and records, through the senses, myriads of sense impressions or sensations. Thus a mind is formed. At death the brain mechanism remains, but without life. Sensation exists no longer. The recording cells are dead and so is the mind. The Scriptures record of the dead that 'even their thoughts perish'.

The power of the brain to receive, record and relay nerve impulses is dependent upon the various internal secretions or chemicals which feed, bathe and give tone to it. If certain chemicals are either withheld or exist in excessive balance to other secretions, the brain loses or adds to its normal tone, and this in turn affects what is known as the 'normal mentality' or 'mind stuff' as a whole. The laws of cause and effect are indisputable.

The findings of medical science are sufficient proof that man's physiological elements, his behaviour, and what he looks like, form one complete and understandable pattern. Each aspect is a clue to the other two parts of the picture. From a comprehensible

medical survey of an individual it would be possible to estimate that person's temperament, his weaknesses, abilities and potentialities. Again, from a knowledge of his daily life and reactions to environment, his physiological condition might be deduced, as well as his physical appearance and general type (if this were not already known). Thirdly, from the appearance alone, both the physiological state and the main elements of personality could be determined.

Character Recognition

The 'character' and value of a building may only be estimated by a balanced consideration of the solidity or frailty of its structure, the artistry or unimaginativeness of its conception, the delicacy or vulgarity of its ornamentation, the durability or flimsiness of its outer framework. Often an unfortunate site, badly chosen furnishings, neglect, or crudely superimposed 'improvements' obscure the basic qualities of strength and beauty, so that the passer-by glances only once and is not impressed. "Dull, unfriendly place," he might remark in the same casual tone used in mentioning an acquaintance, "A weak type . . . no character".

It is natural that judgments must be based on appearances, but observation must needs be accurate, not unduly swayed by minor details, or distorted by unimportant, transient impressions. In forming opinions about people it should always be remembered that moods and expressions provide useful data only when they are considered in conjunction with the actual form, the bodily structures. Facial expressions are particularly liable to misinterpretation, for they often vary to such an extent that an illusion of character variation might be deduced. In actual fact, the basic appearance of any individual rarely undergoes any remarkable alteration after the completion of bone growth. If the body continues in a state of normal health, the *type* of physique remains unchanged, and correspondingly the *basic* disposition continues throughout life, though this disposition may be moulded by environment, developed through training and balanced by experience.

It is the understanding of this relationship between physique and personality which makes for the accuracy of many outstanding descriptions of character as portrayed in drama and in literature. The old-time melodramas, although exaggerated and unsubtle, were enacted with a startling clarity as regards the presentation of character. The audiences needed no opening words from the swarthy villain of the piece; he was instantly greeted by catcalls

and hisses when he appeared on the scene, his satisfaction with himself as an actor gauged by the measure of dislike accorded him by his public. In his guise as a malevolent landlord, his eyes were narrowed beneath black brows; his nose was hooked, his mouth thin and sneering beneath sinister moustaches. His gait was a bullying swagger. (He was, in fact, a frock-coated picture of the devil. Though lacking the traditional horns and tail, his physical aspect was true to the current imagining.) The hero of the piece was as generously applauded as his opposite was heckled; there could be no doubt that this clean-shaven, noble-browed figure with the candid blue eyes and firm, fearless chin was a man of principle whose natural courage and goodness would carry him through any ordeal, victorious. The actions of the villain were expected to be violent, ruthless and acquisitive, motivated solely by greed and unleavened by sensitiveness. Had he for a moment strayed into some unselfish action, his character would have been puzzling, disappointingly out of focus. The audience (with reason) linked his appearance with his words and behaviour; the two aspects were co-ordinated. The hero was regarded in the same unwavering light. He embodied charity, fair play, and all the forces of valour. Had he, in turn, shown any baseness, any serious deflection from his role, his disposition would have confused those who knew what must be expected of him.

Although this is a purposefully heightened, more than lifesize example of the general idea of a link between physique and character, the fact remains that the discernment of this relationship has been practised in the very rudiments of character portrayal.

In literature the same trend is followed by those writers who are expert in the creative construction of their characters. Out of their knowledge of life and people, such authors are able to project human beings who come alive in the pages of their books. These are no mere agile puppets, but wholly credible, three-dimensional men and women whose words and gestures of bravery, stupidity, sympathy or perfidy have an unmistakable aura of truth. Since their skilfully welded appearance and personality is lifelike, they exist for the reader. And because of this, they remain in the reader's mind as clearly as do the images of his friends and his enemies. Not only does he possess a clear picture of what they are, but he is fairly certain of how they would behave in any given circumstances.

Again, the portrait painter whose work is of any permanent value, practises this same ability for discernment and interpretation. The face of his portrait must be limned with technical com-

petence, but for greatness, more than anatomical accuracy is essential. The sitter's disposition must be understood, so that his pose, his expression, his habitual *self* is captured, and he seems to speak from the canvas as he is and not as he would wish to appear.

In the world of successful buying and selling, a knowledge of people is as important as skill in the mechanics of commerce. Any successful business man possesses competence in assessing his client's personalities. From a wide experience of types of men and women, their appearance, outlook, approachability and behaviour under varying conditions, he attains the ability to estimate accurately any customer's potentialities. The first judgment is usually made on the appearance of the client, his face in particular, and personality is interpreted through this physical data. Salesmen who have perfected their art of approach must know at a glance where their difficulties will lie, and at what point to find the Achilles heel of their 'victim'. Sometimes such men attribute their success to a natural'shrewdness' or to 'intuition', but these explanations do not describe the full process which involves an instinctive realization of the bond between physical appearance and individual personality.

Twins

Consider, in everyday life, the startling difference between the facial features of the habitually aggressive, intolerant man, and his neighbour, whose basic nature is docile and passive to the extent of timidity. Alternatively, it is interesting to bear in mind the fact that the more alike any two people are in disposition, the greater will be their physical similarity. The case of identical twins is a dramatic illustration of this point.

Some years ago publicity was given to eighteen-year-old twins, who were indistinguishable from each other in every respect of build, feature and voice, and who, throughout their early years shared the same ailments of childhood. Both recovered from identical operations which they underwent within a few minutes of each other. Both momentarily ceased breathing at the same time, but after treatment made excellent recoveries. Later, both decided on the same career and showed equal ability in the same direction.

It is not uncommon to hear of identical twins so alike that parents who cannot tell them apart find it necessary to insist on some distinguishing mark. That such a mark is essential is sufficient proof of the twins bearing an exact likeness, *not only in physique, but in behaviour and character as well.*

Many twins are not identical. Sometimes the difference is pronounced; often it is slight. But it always follows that any great or small dissimilarity in appearance is linked with the same proportion of dissimilarity in disposition. 'Ordinary' twins should, therefore, not be expected to look or act as one person, for only 'identical' twins have the basis for perfect resemblance.

George A. Dorsey[1] (*Why We Behave Like Human Beings*) says:

> "There are two kinds of twins: twins; identical twins. The first type develops independently from two ova that happen to mature at the same time. Each ovum develops its own chorion and placenta—though the two placentas may partially fuse. They are not true or 'identical' twins, merely accidents as to time of birth. Both may be boys or girls, or they may be brother and sister. They vary as brothers and sisters of a family normally vary. Identical twins are always of the same sex; either both boys or both girls. They develop from a single ovum, in the same chorion, and receive food and oxygen through the same placenta, to which each is attached by its own umbilicus. There need be no doubt as to whether twins are just twins or identical; if identical, they are always of the same sex and there is only one placenta; if there are two placentas, or if they are of different sex, they cannot be true twins. Sometimes identical twins are so alike that only a string around the thumb, or some such device, will enable the mother to distinguish one from the other."

Connection Between Physique and Mentality

Apart from twins, people who are very much alike in appearance do possess similar character traits. Occasionally you meet a person who reminds you of someone else you have known. The likeness is not complete, but the eyes or the mouth might be almost uncannily the same. In such cases a gesture, an inflection of voice, a small habit or a type of skill makes you feel that you are with the friend whose face and manner is conjured up by the accident of resemblance.

But such instances are rare. In fact, if the full sum of man's character could be assessed at one hundred, many people might be found to possess fifty, sixty, or even eighty points roughly alike, yet the remaining balance would be so widely different that no possible danger could arise of mistaking one person for another. And it is this extraordinary diversity of physique and personality among types of men and women which fascinates and dismays

[1]Harper & Brothers, Publishers.

the student of human nature, for his wealth of subject matter appears inexhaustible.

The inseparable link between physical and mental qualities may be best illustrated by that strange, subnormal human, the cretin, whose unfortunate state makes him so easily distinguishable from the normal individual. His skin is bloated and dry; the eyes are small, usually watery and almost hidden by the poorly developed top and lower lids. The nose is short, pug, usually with thickened nostrils. The hair is coarse but scanty, and the eyebrows are scarcely marked. Other features are: large ears, a thick-lipped, badly shaped mouth with drooling tongue, few and irregularly shaped teeth, a large head (in comparison with the rest of the physique) and a body without erectness or agility, but squat and dumpy, with fat in excess, and badly distributed.

Cretinism develops during the formative period when, after the body has reached a certain point of growth, the thyroid gland (situated in the neck) remains shrivelled and undeveloped. Thus, at an age when normal children begin to assume an individuality and to acquire habits and display behaviour trends, the cretin fails to make this progress. Few, if any, sense impressions are conveyed to the brain, and whatever impressions are transmitted fail to be recorded in the brain cells. As a result there can be no memory. In severe cretinous cases there is no recognition of parents nor of any place or object. Unless treatment is administered, the cretin remains in his harmlessly imbecilic state, yet his body grows and his general health appears to be unaffected.

A cretin whose imbecilic state is due only to his inactive thyroid gland can, when artificially supplied with thyroid, be transformed into an individual with a normal mind and personality. The eyes brighten; the upper and lower lids develop; the nose loses much of its 'pug' appearance; the mouth takes shape and firmness, while the tongue recedes into its proper position. The skin gains a finer texture and the hair grows thicker and longer. The whole body, once a repulsive mass, is remoulded and made normal. To such a dramatically altered individual the word 'cretin' can no longer apply, for his disposition in all its aspects changes as swiftly as does his bodily form. From total inadequacy of both body and mind, he is brought to physical and mental normality. But should the artifical supply of thyroid be deprived him, he will revert swiftly to his previous hopeless condition, regardless of the 'mind stuff' he was able to store during his period of normality. His deterioration will be as rapid as his previous recovery.

It is only during comparatively recent years that medical scientists have taken a professional interest in the personality and outward physical appearance of man. Hitherto their activities were mainly centred upon a restoration of health to the *mechanism* of the body and brain, while the mind and personality of the patient were regarded as ephemeral and not sufficiently concrete subjects for the severely logical attention of the medical world. Their researches were conducted chiefly, if not entirely, with regard to the sick body, the broken bone, damaged muscle or infected tissue. But of late a wider field has been explored, and scientific laboratories have yielded a series of discoveries which now substantiate what had previously only been hazarded, namely that *both in sickness and in health* man's physique and personality are inseparably linked. With the gaining of a fuller understanding of the effects of the endocrine secretions on both physique and disposition, there is the likelihood that future generations may avoid wastage of life, the non-utilization of ability, and the non-recognition of maladjustment which their predecessors endured.

There are many instances of diversion from what is regarded as the normal or average personality, although these have no startling or repulsive physical manifestations such as has the cretin. In such cases there is no diagnosis of 'illness' since the state of mentality is, in fact, natural to the individual and is often a part of his hereditary make-up. Although it may be difficult to refrain from criticizing a man with intensely irritable and bullying propensities (on the grounds that he could change his disposition if he wished) it must be remembered that in many cases of excessive bad temper, intolerance and ruthlessness, the personality is only a result of a physically toxic condition, and that only through physical treatment could any softening or balancing of temperament be attained. Again, there are unfortunates whose entire lives are led in a state of sub-health; they do not suffer from any obvious specific illness, but their mental outlook is bleak and mistrustful, lacking in ambition and incapable of joy. Such men and women are often shunned by a society which dubs them 'dreary', 'narrow-minded', or 'unfriendly'—whereas the root of the trouble is entirely physical. Conversely much praise and admiration may be heaped upon those leaders and brilliant folk whose energy, enthusiasm, strength and versatility appear to be the final products of diligence and discipline, whereas, in fact, their secrets of prowess may be traced to a fortunate accident of physique endowment.

In assessing behaviour and character, the physical element must be considered, for in the physique lies the clue to behaviour

of any kind, normal or abnormal. Environment and training have their undoubted influence but the 'clay' of which any human is made, is the chief determiner of his disposition. If certain internal organs are thrown into disharmony, the results on the mind and personality, even if the brain mechanisms are healthy, will be far reaching.

A young woman may, under normal conditions, radiate mental and physical energy. She may be industrious, happy, and talented culturally—her outlook cheerful and ambitious. Yet if certain chemicals in her body lose balance, no effort of will, no 'Coué-ism' or application of 'mind over matter' theory will change her physical and mental state to any pronounced degree. Her altered bodily condition will be manifest in her lowered spirits, her slackening of all enthusiasms, her possible aversion to those occupations which once gave her pleasure. In such a case the root of the disturbance must be sought and the physiological elements adjusted so that the body might be brought back to its normal state. This process is *assisted* by the instilling of confidence in the patient whose co-operative mental attitude doubtless plays some part in the body's recovery.

Physique is the vital determiner of personality. (The word 'personality' may be traced to the Latin 'persona'—originally an actor's mask—which in turn is derived from 'personare' meaning 'to sound through'.) The link between the two is complex, delicately powerful and immensely subtle. The body's effect on the mind is as important as the action of mental experience on the body. Just as, through treatment of the body, changes in mentality can be brought about, the forces of mental stress, anxiety, grief or frustration may occasion impairment of the bodily functioning. Shock, overwork, constant repression of some natural instinct, boredom, prolonged uncongenial work or environment—all these will have their effects on the bodily chemicals, sometimes upsetting their harmony to such an extent that the sufferer makes of his body and personality a vicious circle which, unless skilfully arrested by sympathetic recognition and treatment, may damage his life irreparably.

'Neurosis' is a favourite psychological term; it implies a mental disturbance which may be cured by psychological methods. But sometimes the bodily functions of the neurotic patient are too greatly affected for such purely external treatment. Even when the apparent root of the neurosis has been traced and removed, the damage to the patient's physique must still be remedied in order to ensure complete recovery. (It may be argued that a 'neurosis' is usually mental in causation, but the majority of 'neurotics' are such primarily because of physical and not mental disturbance.)

The Face: An Index to Character

In health or in sickness, any permanent change or alteration of long duration in the organic functioning will have a resulting effect upon the facial features. Except in rare cases, the basic facial structure does not alter to any extent after the age of twenty. It is the surface tissue and muscle development which at any period is subject to change, and this process becomes evident at any time after five years of age. In the early years such changes accompany the natural growth and development of the body. During adolescence and maturity other factors combine to impose changes in the face. A balanced or inadequate diet, physical suffering, mental conflict, the biases of education and environment, the balance or disharmony of the body's chemical functioning—all of these affect the muscles and fatty tissues of the face, determining its contours and habitual expression. Even slight pain or mental stress makes its mark on the face, and when these factors become pronounced or enduring, their effects on the facial structure may be startling and pitiful.

The expressive muscles may be likened to the biceps of the arms. If rarely exercised they will always be flabby or undeveloped; if constantly engaged, their development will be noticeable even when they are relaxed. The facial muscles move in response to directed thought, or controlled or uncontrolled emotion. After a time, even when the face is in repose, the result of such exercise is easily discernible. If a man is blessed with a consistently cheerful frame of mind (whether he be a simpleton or a philosopher) his mouth, even when unsmiling, shows the noticeable development of the lower cheek muscles; one major aspect of his disposition has been faithfully recorded in his face. A man who habitually directs much attention to visual objects at close hand, can be detected as having the type of eye and mind capable of intense concentration. By the basic shape and proportion of the face itself it can be determined whether he has the kind of brain capable of concentration on minute objects, and by the surface muscular development on the face, whether he puts this faculty to full use.

It is not necessary to provide extreme illustrations in order to show how variations in behaviour accompany variations in physical and especially facial appearance. One has only to observe, for instance, the type of person who lives in a state of hyper-

tension, whose mental faculties are as tireless as his physical, and whose behaviour is restless to the extent of his appearing constantly dissatisfied. In the features of this type may be seen the quality of 'aliveness', which is far more deep-seated than any momentary alertness. The very basic structures of the face and body have the appearance of being especially constructed for the accommodation of motor power. The eyes are well-muscled and in constant movement. When fixed upon an object they do not stare but possess a penetrating, wide-seeing quality. Nothing seems to escape their scrutiny. Such eyes never appear weak or nondescript. Their lustre and expressiveness make them important factors in indicating the mobility and forcefulness of the personality. The features, whether angular or oval in bone formation, are spare, neither fat nor emaciated. They show, in practically every mental or emotional mood, an elasticity of movement.

The clues to personality and character are clearly shown in the face. By the basic and muscular formation may be determined the inherited qualities, the deep-rooted or potential personality, and upon the muscular, surface development of the face (i.e. eyes, nose, mouth, cheeks, brows, etc.) are imprinted the results of training or lack of direction, the effects of environment, and the present day-to-day disposition.

Men or women who have manually practical assets possess certain identifying facial characteristics. It is commonly understood that people with large, prominent eyes find difficulty in concentrating either upon concrete problems or material objects. In nine cases out of ten, a vertical forehead accompanies eyes of this type. Approximately 75 per cent of women have vertical foreheads, and approximately the same percentage of men's foreheads are receding. Narrowness of eye indicates (with few exceptions)

Fig. 1.

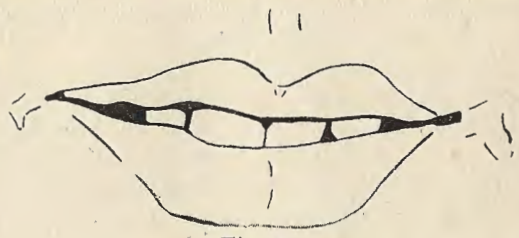


Fig. 2.

deftness of fingers. A person with (*a*)[1] loosely shaped mouth and lips possesses none of the decisiveness of character natural to one

[1](a) See Figs 1 and 2.

whose mouth and lips are medium-thin, or thin and firmly muscled. The man with angular features and a receding forehead will display behaviour and ability characteristics which differ widely from those of the man whose forehead is rounded and features, as a whole, oval.

The disposition of a woman with fine, silky head hair and eyebrows will be quite unlike that of her neighbour whose hair is coarse and whose eyebrows are stiff and heavy. A man whose face is lined and wrinkled has a more pronounced character for good or evil than he whose face is devoid of such facial calligraphy.

In briefly considering the two main types of abnormal features, it is interesting to note that the relatively harmless imbecile has a vertical forehead, or one with the upper part protruding beyond an imaginary vertical line from the brows to the point of the chin. An idiot whose violence necessitates his guarded confinement, will invariably possess a markedly receding forehead. Although each of these types must be segregated from normal society, the kind of mental misdirection in each differs as widely as does the personal appearance.

Faces, since they form the stage whereon the reactions show themselves most clearly, provide the most obvious physical clues to personality. The growth and maturity of our character traits may be witnessed in the changes and developments of our faces. What we are is clearly reflected in our bodily structure, and since the most sensitive medium for this record is the face, it is possible to form from it a comprehensive picture of any individual's disposition.

Some Historical Opinions

The study of faces has proved absorbing ever since the earliest times. Some have attempted it lightly as a means of amusement, or in order to exhibit their shrewdness of judgment ("those lobeless ears . . . a criminal nature . . . that drooping eyelid . . . a miserly character"). Others have called themselves 'physiognomists' and surrounded their practice with a mumbo-jumbo very much like that of the palmist, astrologer and phrenologist, so that eventually people came to regard them merely as fortune-tellers who used the evidence of the facial features in much the same way as the crystal-gazer uses her opalescent crystal.

Some famous men, however, have spoken of facial character in a manner revealing profundity of reflection and an all-embracing understanding of mankind. While in some instances contradicting the facts now proven by medical research, these great thinkers at

least showed an unwillingness to consider any separation of the aspects of body and mind, in arriving at any formula of human character. Physiognomy formed part of the earliest practical philosophy as shown in the works of Homer and Hippocrates, Juvenal and Seutonius. Pliny says: "The forehead of a man is the index of sorrow, cheerfulness, clemency, severity" and "The human features and countenance, though composed of but some ten parts and little more, are so fashioned that there are no two in existence which cannot be distinguished from each other."

Pythagoras, it is said, diagnosed by means of physiognomy the characters of his would-be pupils before admitting them into his circle of instruction. Cicero wrote: "Nature hath bestowed on man a bodily figure completely adapted to his mind . . . she has besides, so exquisitely modelled the human features that they are capable of expressing the most secret emotions of the soul; the penetrating glances of the eye indicate the corresponding internal affections."

Aristotle held firm opinions on the importance of facial aspects. Of noses he says that "those with thick bulbous ends belong to persons who are insensitive and swinish—sharp-tipped to the irascible, those easily provoked, like dogs—rounded, large and obtuse noses to the magnanimous, the lion-like—slender, hooked noses to the eagle-like, the noble but grasping—noses with a very slight notch, to the impudent, the crow-like—white, snub noses to those of luxurious habit, like deer—open nostrils being a sign of passion" . . . etc.

Old English law forbade the practice of physiognomy which, having embraced divinations and astrology, attracted to it charlatans and soothsayers, just as in modern times. By Act of Parliament (1743) any person professing skill in physiognomy was regarded as a mischief-maker, punishable by public whipping or imprisonment. The necessity for such a measure seems to indicate that, though debased and distorted, the art of physiognomy provided an absorbing interest for many who glimpsed, through the maze of fantastic 'clues' and fortune-telling ritual, some hint of truth. That there should be some link between man's inner and outer self was understood. But the question was: where precisely might this be found?

In more general terms, much has been written about the relationship between the body and personality. There are many instances in the Bible: "A naughty person, a wicked man, walketh with a froward mouth; he winketh with his eyes, he speaketh with his feet, he teacheth with his fingers" (Solomon). "A high look

and a proud heart" (Solomon). "A cheerful countenance is a token of a heart that is in prosperity" (Eccl.). "The wickedness of a woman changeth her face" (Eccl.).

Lucretius says: "We perceive that the mind strengthens and decays with the body," and Pliny the Younger, "Our body must be repaired and supported if we would preserve the mind in all its vigour." Ovid writes: "The contagion of a sick mind affects the body."

A great part of literature concerns descriptions of people, and many interesting observations are to be found in the works of men who could not have been influenced by the more modern trends of psychological theory and scientific research. Emerson frequently refers to the physical-personality bond, and Sterne writes: "A man's body and his mind, with the utmost reverence to both I speak it, are exactly like a jerkin and a jerkin's lining; rumple the one—you rumple the other."

Ernest says: "Hence also the exact correspondence of body and mind, for the natural conformation and habit of body are usually found conformable to the disposition and propensities of the mind, to such a degree, that from the speech, the gait, the complexion, a person of discernment will form a tolerably accurate judgment of the mental powers." And Thoreau writes: "Our life is but the soul made known by its fruits, the body. The whole duty of a man may be expressed in one line: Make yourself a perfect body."

Lavater who in the eighteen century contributed lengthy discourses on the subject of physiognomy, pleads: "Faces are as legible as books, only they are read in much less time, and are so much less likely to deceive us."

Napoleon, who prided himself on his judgment of character, wrote with characteristic force and assurance: "Give me a man with a good allowance of Nose. Strange as it may appear, when I want any good headwork done, I choose a man—provided his education has been suitable—with a good allowance of Nose."

Progress

Only in fairly recent years have small bands of medical and psychological workers attempted to combine the facts of physique with the data of character traits, and to arrive at certain conclusions concerning the classifications of physical 'types' with corresponding abilities and behaviourisms. Efforts in this direction have been widely successful, yet there are many clues still lacking, and much remains to be added to this study of the physique-

personality link. In future years this branch of endeavour will doubtless produce many revolutionary contributions towards the understanding of all that man is and does.

Even in its present form, not fully complete, this study is valuable in that it points to a universal need for a greater elasticity and accuracy of judgment concerning human behaviour. When it is understood that men and women are, for the most part, motivated by their bodies in their every thought and action, many perplexities and intolerances might be avoided. If the physique and personality are each regarded as part of a whole, rather than as two separate, unlinked entities, it will follow that each will be accorded its fair share of attention and discipline, neither half being stressed above the other.

It is readily acknowledged that this subject is vast in scope, and that in order to reduce it to essentials, many of the finer subtleties must be eliminated. That it is a controversial subject cannot be denied. But the avoidance of controversy inevitably leads to staleness and inertia. It is hoped that the pages which follow will at least prove stimulating, even if the reader finds them altogether disputing his own ideas about how and why men and women are cast in certain moulds and display certain kinds of behaviour accordingly.

CHAPTER II

THE MOTORS OF EXISTENCE

> Nature has constituted the bodily organs with a suitableness to the qualities of the mind.
>
> GALEN.

(The Endocrine Chain: the group of glands, i.e. thyroid, adrenals, pituitary, thymus, etc., which, depending upon their activity, relative chemical balance and prevailing single dominance, occasion certain identifiable physical and personality characteristics in the individual.)

The Endocrine Chain

THE chief factors in bodily functioning, the *raison d'être* of physical appearance, behaviour and character, are, science has found, the endocrine glands, those little motors or organs whose function or malfunction makes man what he is physically and psychically. The success or failure of this glandular group makes for the individual's success or failure; its power is his, its weakness his. Throughout his life its effect is continuous and all important; indirectly it can destroy or exalt. If abused, it exacts retribution.

The endocrine system comprises a number of glands of internal secretion, those of major importance being the adrenals, the thyroid, the pituitary, the gonads and the thymus. This chain indivisibly binds man's physical and psychical qualities; it bridges conclusively that mysterious no-man's-land which has hitherto puzzled medical and sociological workers, and occasioned such an accumulation of conflicting theory concerning human behaviour.

The records of research workers show that without the endocrines there could be no growth, strength, sensation, mental activity or life. Although the structure of the glands is relatively so insignificant that in past times medical men dismissed their importance as negligible, they are the very motors of existence. Their balance of influence is so delicate, so sensitively proportioned, that through the slightest degree in variation of function a man may be transformed from a genius to a lunatic, from an imbecile to an intelligent being, or from an energetic leader to an indolent follower. Upon their state of balance during the years of

Chart 3

GENERAL TYPE LEVELS

THYROID-SENSORY SCALE *Main characteristics*	GLANDULAR INFLUENCE Pituitary-adrenal, thyroid balance	ADRENAL-MOTOR SCALE *Main characteristics*
HIGHEST GRADE MENTALITY. Perfect balance of motor and sensory powers. (Chart 26.) Creative, imaginative mentality. Intellectual propensities. Controlled artistic idealism. Marked sensitivity of body and mind. (Figs. 27 and 28.)	UPPER LEVEL Good balance	HIGHEST GRADE MENTALITY. Perfect balance of motor and sensory powers. (Chart 23.) Excellent brain cellular development and stimulation. Controlled practical idealism. Acute perceptivities. Finely disciplined forcefulness of body and mind. (Figs. 24 and 25.)
Good general development of brain and physique. Spontaneous enthusiasms. Sensory alertness. Sociable, unaggressive disposition. (Chart 20. Figs. 21 and 22.) Fair development and control of physical and mental faculties. Gregarious nature. Mental and manual impracticability.	INTERMEDIATE LEVEL Fair balance	Good general development of brain and physique. Swift, well-coordinated physical movements. Mental alertness and practicability. Materialistic outlook: Aggressive inclinations. (Chart 11. Figs. 12 and 16.) Fair development and control of physical and mental faculties. Aptitude for semi-skilled manual tasks. Brusque, unimaginative nature.
Sluggish mental reactions. Poor physical proportioning. Improvident, phlegmatic disposition, Crude, sensory appreciations. (Chart 17. Figs. 18 and 19.) Harmless imbecility (Inherent)	LOWER LEVEL Poor balance	Inferior mental faculties. Crudely proportioned physique. Undisciplined force in physical actions. General instability of body and mind. (Chart 9. Fig. 10.) Violent idiocy (Inherent)

infancy and childhood, the bodily framework, the stature, the muscle formation—all depend. Growth may be swift or retarded, features evenly shaped or grotesque, eyes deep-set or prominent, muscles lithe or feeble, fat evenly distributed or layered in a cumbersome fashion, limbs long or short; any of these possibilities may be determined during the early functioning of the endocrines.

Some modern factories are equipped with mammoth machinery of such prodigious power and hairsbreadth accuracy that the uninitiated must view it with fear and admiration. Any vast, smoothly running engine of manifold complications and almost 'thinking' qualities evokes something like awe in its beholders. The worker who stands beside any such steel giant seems—in comparison with his glistening, champing robot—a mere dwarf, a simple and easily understood skin-and-bone creature. Yet could we watch the working of any man's body and had we the wisdom for fully comprehending the astonishing delicacy and interaction of its parts, we should conclude that the human body, in comparison with any mechanical system contrived by man, is a supreme miracle of sensitivity, swiftness, co-ordination and endurance.

Brain, stomach, heart, lungs, bowels and kidneys are generally (though vaguely) believed to be the most vital parts in the bodily equipment. Yet none of these could function without stimulation by the glands of internal secretion. When the adrenal glands (situated astride the kidneys) are removed or irreparably damaged, the body dies within a few hours. If the thyroid (situated in the neck, close to the larynx) is removed from a normally active physique the patient becomes an imbecile, lethargic and grossly fat. If the pituitary could be taken away, even without damage to the brain, the body would rapidly die. When one or more of these glands overact or underplay their daily part in motivating the bodily mechanism, the result is some dramatic alteration, at the same time physical and psychical. It is significant that the employing of 'will-power' in an endeavour to counteract such glandular overfunction or underactivity has not the slightest effect on the natural course of action.

Childhood and Adolescence

Until the age of about three to five years (and sometimes a little later) all children bear the same general cast of features. The high, vertical or protruding forehead, the large eyes, indefinite nose and oval or round face—these are characteristic. This is the

era of the pineal gland which exerts its most important influence while the other glands remain comparatively dormant. But at about five years of age the beginning of a change is manifested in the child. In some cases the forehead remains vertical or protruding, the eyes large and prominent; the nose lengthens but retains its *retroussé* or concave shape; the lips grow more full, but the face retains its original oval or round cast. In other types the forehead may very gradually recede, the eyes become deep-set; the lengthened nose may become straight or indicate an outward curve. In most cases after the age of twelve the potential adult face shows clearly in the child's countenance, and the personality-to-be shadows the new physical tendencies.

During this period, while the thymus inhibits sex activity, the glands' main function is to influence growth and shape of body and brain. The struggle of one gland against another for supremacy is now commenced. The form of body and face and the shaping of personality alike depend on that gland which gains dominance over the other, and this conflict may account for some of the instability and inconsistency of a child's nature until at least the age of fourteen. Should the adrenal gland gain a major influence during the period from seven to fourteen years of age, a certain distinguishing set of physical characteristics will result, which will differ widely from those resulting from a thyroid dominance.

During adolescence, lasting generally from about fourteen to twenty years of age, the gonads begin to exert their bias on the now dominant gland or glands. Although much has yet to be proven in this field, it has already been partially realized through research that the adrenal cortex is the agent which determines whether ovaries or testes are shaped in the womb. It may also be proven in time that post-pituitary or pre-pituitary influence decides whether testes or ovaries (depending upon which is present) develop, or whether a secondary sex nature is superimposed upon the basic structure. In plainer words, a baby may be born a boy, but at a later date, because of pituitary glandular influence upon the gonads, he may become an effeminate man. In the same way and for the same reason a girl child may develop into a masculoid woman.

Maturity

From the age of twenty until about forty-five years of age is the era of the controlling gland (or interrelated controlling glands). The physique is now shaped and the personality pursues a definite

course until such a time when the controlling gland or glands lose power and senility ensues, with gradual bodily deterioration. This may occur at any age, although the normal beginning of senility cannot be placed earlier than forty-five years of age. 'Senility' in this sense does not imply the picture of doddering uselessness which many accept as its meaning. Senility is simply the gradual slackening of the bodily forces, and this slow loss of power does begin to occur shortly after middle age. When, in time, the glands —particularly the adrenals—cease functioning because they have been worn out, the heart ceases its beating and death follows.

All these various changes from infancy through the years until death are traceable to the changes in balance of the influence of one gland over another, or the deterioration of one or more of these primary motors. Such changes are usually quite normal; they depend on the healthy development and use of each gland. However sometimes, through disease in a gland, or shock, accident or strain, the changes are premature and unnatural. Even environment with its frequently powerful effects upon an individual, will bring about an alteration in the ratio of chemical balance.

The endocrine system is primarily concerned with physical growth in the early years, and in later years with the maintenance of what has grown. In childhood and adolescence the shape of body and face is determined; later this basic pattern is confirmed or subtly altered. Once the particular kind of brain cells and nervous system has been established, the thinking processes, emotions, behaviour and personality of the individual are subject to the same forces which influenced the primary bodily mechanism.

In the healthy body, as in the sick one, differences of appearance and personality are a direct result of difference in ratio of function of the various glands. If two men were found to be exactly alike physically and psychically, a laboratory test would establish their internal secretions to be present in the same proportion. If the maximum power of each gland could be valued at 100, it can be readily understood that a man with this combination: adrenal 70, thyroid 33, pituitary 22, pineal 12, thymus 31, pancreas 52, interstitial 37, parathyroid 19, will be a very different type of person from another whose ratio is: adrenal 89, thyroid 42, pituitary 70, pineal 9, thymus 17, pancreas 32, interstitial 85, parathyroid 29. Each unit of glandular exertion has its influence on the individual, and the wider the difference in ratio between two persons, the more emphatic the dissimilarity of mental and physical qualities.

But it does not follow that all persons are equally fitted for emergency action, since in some, adrenal activity is much less marked. Varying reactions may be expected from a group of people whose serene sociability is disrupted by the sudden realization of imminent death or disaster. Instantly the gathering is transformed into a hurriedly moving, tense, alarmed community, some adding to the confusion by their agitated interference and hysterical attempts at self-preservation, while others, no less active, behave with unexpected resourcefulness and skill. At such times cowardice and heroism show themselves, and after the crisis has passed, the various kinds of behaviour are, perhaps, publicly censored or approved. Sometimes in such adulation or disapproval one can see little logic, for bravery may only be measured according to the difficulty any person has in combating fear; what amounts to normal conduct in one may be a supreme effort in another. Heroes are undoubtedly 'born' not 'made', for that which is termed 'cowardice' is often merely the inability of the body to become sufficiently empowered for achieving feats of clear thinking and physical prowess in the face of danger. Those born with strong adrenal glands have every reason for playing a heroic part, if given the opportunity. Those less well equipped adrenally, deserve the name 'hero' if their accomplishments of bravery fall far short of the acknowledged standards. The term 'bravery' is relative. The brave man is surely he who finds even the smallest measure of courage most difficult to foster in himself, and whose physical constitution does not permit spontaneous or sustained boldness or vigour. Frequently a man most lauded for his bravery enjoys rather than dreads any struggle, opposition or danger. Strongly fortified adrenally, his body acts with magnificent efficiency under duress; his mind is clear and swift-thinking, his limbs finely controlled, his entire being concentrated, without any marked inner conflict, upon his becoming master of any situation.

In times of war, feats of incredible endurance are commonplace. Shop assistants, clerks, tinkers and tailors become soldiers, sailors and airmen almost overnight; they are expected to acquire a warlike skill, a deadly team spirit, a natural bravery and stoicism. Yet because a man wears a martial uniform and undergoes incessant rigorous training, it cannot necessarily follow that he is physically capable of withstanding the final strain put on him by actual bloody, armed conflict. Though he may wish to be brave, the effort of wishing does not always produce the required type of courage. Despite the training and discipline imposed on him, he

may still, in the final kill-or-be-killed situation, find himself useless, his body rebellious and his 'courage' barely sufficient to save him from the 'disgrace' of flight. Some men are fighters while others, through no fault of their own, are not and never can be. A rabbit would not be expected to attack a dog or worst him in battle; neither should a man of insufficient adrenal capacity be despised because his body will not allow him to do that which his country expects of him.

Those who adapt themselves best to martial life are men and women of action, strongly adrenal, whose actions, appearance and speech proclaim them to be enthusiastic doers, never idle dreamers —their very facial formation revealing their innate initiative, determination and 'courage'. This adrenal type suffers little difficulty in fulfilling arduous or dangerous tasks, for even in time of peace he (or she) is aggressively inclined, intensely practical, physically vigorous, and rarely troubled by sensitiveness or any qualm of inferiority sensation. From an endocrinological standpoint it would be simple to select from any group those best temperamentally fitted for some particularly exacting or perilous wartime operation.

Not only during danger periods do the adrenals play their part. Muscular activity of any kind stimulates them to activity. Heavy lifting, throwing, running, pushing, climbing—athletics (particularly if competitive) and muscular toil exert a strain on the system which necessitates the assistance of the adrenals. A man who has run some distance may believe himself on the point of exhaustion; every part of his labouring body protests against further endurance. Then new strength pervades him; his breathing deepens and steadies; his entire physique experiences the relief of invigoration. The achievement of this respite, so often called 'second wind', is in fact directly attributable to the adrenals power of reenforcement.

The Vitality Factor

The adrenals, which may be regarded as the power providers in all that demands unusual strength and endurance, produce not only the hormone, adrenine, for such emergency relief, but also the vital and ever necessary hormone called 'cortin'. Unlike adrenine this is always to be found in the bloodstream if the adrenals are functioning normally. The piecing together of data accumulated during recent research discoveries, shows that there can be little doubt of cortin's necessity in the life process. Its action upon the heart nerves causes the heart to perform its duties, and

it guarantees a constant passage of blood through the vein channels. If, over a period of time, this cortical secretion is not forthcoming in normal quantities, the result is sustained mental and physical fatigue, a seriously 'run down' condition. Should this cortical deficiency continue, the illness, unless remedied by immediate treatment, is followed by death. Now that medical science has made synthetic cortin available, a patient treated for such deficiency may show a rapid and seemingly miraculous improvement in health. Every aspect of physical appearance and personality undergoes a change when the normal action of the adrenal cortex varies one way or another.

During the *early* stages of adrenal deficiency no pronounced or alarming signs of illness are manifest. The patient suffers persistent mental and physical weariness, while rest and sleep become increasingly ineffective restoratives. Any activity, even that hitherto absorbingly interesting to him, soon requires an abnormal effort of concentration. There is great difficulty in focusing the attention upon visual objects or upon the smallest daily problems. Depression ensues, with a sensation of frustration and uselessness. The processes of thought and speech are blanketed and the personality gradually dims, losing lustre and individuality. Sometimes such symptoms are diagnosed as indicative of 'nervous exhaustion' or a 'nervous breakdown' and this is at least partially accurate, for the adrenals act through and stimulate the nerves. When adrenal stimulation is seriously slowed down, the consequence is a nervous collapse, and if the trouble is longstanding the generally prescribed course (of rest, extra nutriment, tonics, massage and sunbathing) may bring about little improvement. At this stage doctors and even specialists are often led to pronounce the illness as entirely psychological, a matter of neurosis, frustration or 'escape'. The error is easily made because there may be no obvious organic trouble; it may not be until the deficiency is well advanced that the basic cause of the illness is traced. Indeed quite possibly a great number of those semi-invalids whose physical feebleness points to a chronic 'nervous debility' or 'delicate state of health' are in fact suffering from an unrecognized glandular deficiency, not necessary adrenal, but a malfunctioning of one or several of the glands.

Results of Malfunction

A recent case on record typifies the baffling qualities of adrenal deficiency. The patient at first presumably suffered a 'nervous breakdown' and for some months followed a regime of rest,

unexacting recreation and carefully planned diet. During this time she altered in personality and appearance from a cheerful, hardworking, talented young woman to one who lacked either strength or desire to take part in any aspect of her former way of living. She was attended by four doctors in turn, and by a psychiatrist, none of whom recognized the root cause of her growing exhaustion. The verdict was at last pronounced: the patient was a psychological case since her cure could not be found within the province of medicine. It was affirmed that a neurosis was the basis of her trouble, its manifestations but not its cause, physical. Hypnosis was suggested. Through an exploration of the patient's subconscious mind, some parasitic anxiety, some unallayed fear or unresolved frustration might be unearthed. Upon such findings a new treatment would be based.

However, before this time lapse had brought about its gravest consequences, the real trouble was discovered—adrenal deficiency of treatable form diagnosed, and a cortical extract administered. Within *three weeks* the patient had regained her normal appearance, disposition and outlook.

If this may be taken as any instance, 'psychological' cases are frequently not psychological at all. The tenets of psychology misapplied might in fact prove a hindrance to the maintenance or restoration of health to body and mind.

Glandular malfunctioning is by no means always immediately discernible. There is the concrete example of one child who having first been regarded as 'difficult' was, after expulsion from three schools, labelled 'mentally deficient'. His parents had asked the advice of various doctors, specialists, eminent psychologists and psycho-analysts, but without effect, and the boy's condition was regarded for a time as without cure. However, after treatment from an endocrinologist and the following of an educational regime suitable to the boy's particular needs, a change occurred which in the eyes of the parents was miraculous. After a few months the boy had entirely altered both in physical appearance and behaviour. His intelligence was that of any normal boy of his age because the abnormal glandular functioning from which he had suffered had been rectified. Had the condition been allowed to continue, the life of the child would have been pointless; he might have been an embarrassment to his parents and a burden on society. But, thus restored, he is as capable as any of fulfilling his abilities and living a healthy, normal life.

This instance serves to underline the fact that a hypo or hyperfunctioning of any gland may upset the behaviour and personality

of any individual. No one is immune. Disorder in the endocrine system may be inherited, occur in childhood, develop during adolescence, or through shock, strain or accident, take place at any time in life. But so long as such disorder may be recognized and treated, the after effects of it may be no more serious than those of any other illness to which the body is subjected.

The Gland of Masculinity

A healthy adrenal cortex assists the body to destroy poisons and fight off disease; it makes for high muscle tone, resilience and stamina. Since its actions are closely related with those of the brain, it enables forceful, unfatigued thinking and a combative frame of mind in which there is little likelihood of hesitation or compromise. One impressive visible sign of a strongly functioning adrenal cortex in a man is a healthy, thick, and usually dark facial hair growth. The masculoid type of woman usually has such growth above her upper lip and on the outer edges of her chin. A man's eyebrows will be dark and strongly marked, his chest usually exhibiting a thick growth of hair, as on all normally hairy parts of the body. The texture of the hair is invariably coarse or wiry.

If cortin were withdrawn from the body by removal of those parts of the adrenals which produce the hormone, death in quick stages would ensue in about seven hours. Future research will probably prove that natural death occurs when the adrenals have worn themselves out and are incapable of further functioning, thus depriving the heart of stimulation so that this organ ceases to beat, and the lungs to breath.

It has already been fairly well established that in the early, formative, prenatal stages the adrenals cast a decisive vote in determining the potential sex of the infant. After birth, their influence, in co-operation with the pituitary, has an important bearing on the physique of the growing child. At this point (with regard to future chapters on glandular types) it should be explained that the designation 'adrenal type' is made because persons of this classification are markedly 'adrenal', this glandular condition in them being more pronounced than that of the pituitary or thyroid, and adrenally biasing not only the outward aspect of the physique, but the general cast of the behaviour as well. The features, body, basic temperament and ability potentials of the adrenal type—the sum total of himself, is 'adrenal'. The same explanation applies to the thyroid type whose physical and personality make-up are mainly attributable to the compelling negative or positive forces of the thyroid gland.

The adrenal type of man or woman is hardy, 'tough', better able than most to endure hard work and mental or physical strain. Such a person recovers swiftly from fatigue and suffers little from common infections or sicknesses. Conversely, any individual whose adrenals are inherently poorly developed or underfunctioning, lacks vitality, stamina or will-power. With strong adrenals he is vigorous in body, and if the pituitary is strongly supporting, energetic in mind, well able to think and fend for himself. Adrenal glands in a state of subfunction obviate a normal capacity for work or pleasure. If they exist in a state of hyper-function, the body appears inexhaustible, the personality supremely vital and all general behaviour traits and abilities emphatically masculine.

Some Comparisons

It has been established beyond any doubt that the majority of men—probably about 75 per cent—are of the adrenal type, and this is understandable since the general male physical and psychical traits are in a large measure 'adrenal'. The adrenals may be regarded as the glands of masculinity, whereas the thyroid gland is associated with the opposite, counteracting elements of femininity. These two great forces, adrenal and thyroid, may be likened to powerful contestants for supremacy over the behaviour of body and brain. The thyroid prompts the body to experience, savour and enjoy the pleasurable messages brought via the senses, whereas the adrenals seek to impose a sensory control, a disregard of the soft-coloured, the pleasant-tasting, the fine-textured, the melodious-sounding. So far as sense impressions are concerned, the thyroid's accelerating qualities may be frustrated by the adrenal's incessant counteraction. The former wishes the body to submit itself to sensation while the latter strives to eliminate and ignore the delicacies of sensation, and to steer or direct the body on more utilitarian principles of single-minded energy. These comparisons are necessarily broad, their pictorial quality unnaturally heightened, but they serve as rough illustrations of the glands' effects on physique. It would be erroneous to conclude that the sensation-sensitive thyroid type is a scatter-brained, weak-willed indolent person, or to imagine the adrenal type as an all-powerful, infallibly practical superman. Such pictures are highly caricatured. A clearer conception of type classification, with its levels and variations, is achieved only when the functions of the glands are fully understood.

The Thyroid[1]

The Nervous System Regulator

Although other factors are involved, to put the matter at its simplest the thyroid gland (situated in the neck) may be considered as having in its charge the maintenance of the entire nervous system and the distribution of fat throughout the body. If the first-named duties are well performed there evolves a healthy sympathetic nervous system through which may be carried all sensations or impulses. These (chemical and nervous actions) include the process of seeing, the recording of all that is pleasant or unpleasant to the nostrils, the experiencing of tastes—sour, sweet, salty or savoury on the palate—the hearing of the multitudes of sounds in their variations of pitch, tempo and volume, the feeling by way of touch via the hands, feet and skin.

Depending upon the thyroid's state and degree of power its possessor may be supersensitive to all pains and pleasures, or insensitive—as incapable of knowing sensory delight as of registering distaste or sensory annoyance. The emotions may be chaotic and difficult to govern, or they may be dull and slowly aroused. The health, normality, hyper or hypo-functioning of the thyroid is a deciding factor in the reception of all incoming nerve impulses.

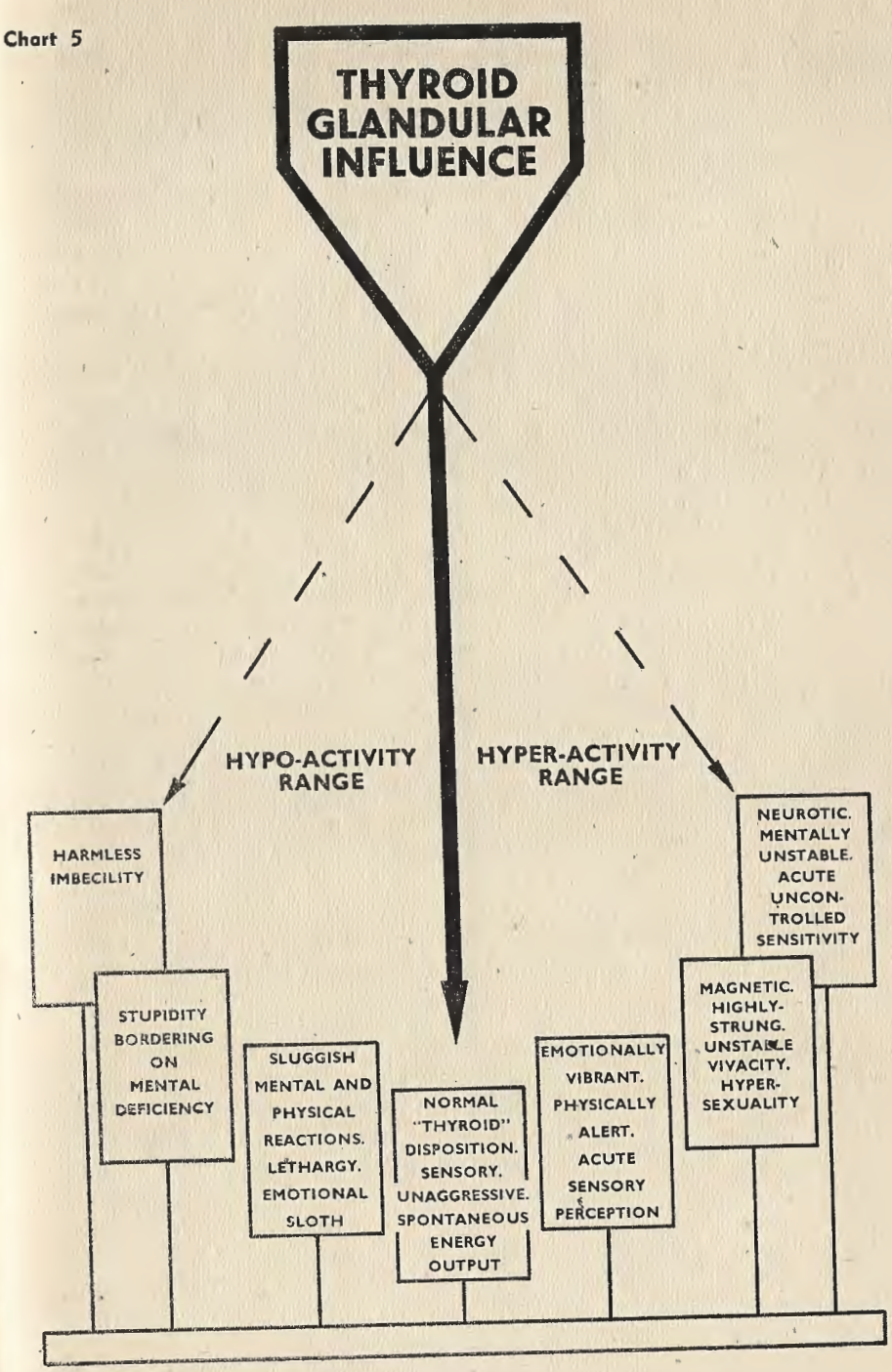
When, for instance, the skin is even slightly injured, the brain is instantly notified of the hurt, and converts the feeling into the thought: pain. The perfume from a flower is transmitted to the brain via the nervous system, and the mental processes, too swift to be measurable, compare this smell impulse with those already recorded in the brain cells, so that this latest sensation is identified, or recorded (favourably or not) as a new smell or sense impression. An active thyroid makes for an active nervous system, or what might be called an acutely perceptive sensory system. Thyroid types are therefore 'sensory' types.

Memory and Imagination

The thyroid gland's healthy functioning is essential in aiding the brain to record, or to lay down the foundations of memory. A sluggish thyroid cannot produce other than a feeble and unretentive memory, and for this reason a cretin (one seriously lacking thyroid) often does not recognize, because it cannot remember, its parents or in fact the identity of any persons or objects. The greater the degree of thyroid, the better the ability for remembering or brain-recording; the less thyroid the increas-

[1]Chart 5.

Chart 5



ingly inferior brain-recording ability and memory. In aiding the reasoning part of the brain to function efficiently the thyroid and pituitary work together, each having slightly different, yet overlapping spheres of activity.

While the thyroid is responsible for shaping the beginnings of memory, the pituitary must put the accumulated 'memory' to work, in formulating reason, making comparisons, and arriving at conclusions. It seems evident that the pituitary's activities in this regard are based on the fitting together of recorded facts which the thyroid has made available for use. The thyroid's influence then, is not in the act of reasoning, but its effects extend far into the individual's imagining, daydreaming, fantasy-weaving. Francis Galton says that the power to imagine is poor in philosophers and men of science, and that the faculty of imagination is more intense in the female sex than in the male. Since the majority of women (approximately 75 per cent) are of the thyroid type, it follows that power of sensory imagination is natural to the intrinsically feminine personality.

The various sense impulses conveyed to the brain cannot be efficiently recorded unless they are transmitted in their true perspective, unbiased by any defect of weakness in the relevant nervous apparatus. The maintenance of this apparatus rests with the thyroid gland, but its upkeep and health are not essential to life since it has been proven that even deprived of all incoming feelings, the body's activity would not necessarily cease; life would continue even if all the functions of the thyroid gland failed. The most disastrous result possible would be a complete state of imbecility. For normal health and intelligence, a healthy thyroid gland and an efficient nervous system are necessary.

The Energy and Fat Regulator

Apart from its intimate conditioning influence upon the nervous system, the thyroid gland acts as an energy producer and regulator, and in these capacities its effects are those of moulding and shaping the bodily exterior. According to the quality and quantity of food provided for the body, the thyroid converts this fuel into energy, the rate of this conversion being termed the metabolic rate. Just as a steam engine's gauge indicates the pressure within its boiler, the metabolic rate serves as a measure to indicate the energy pressure in the body. This energy pressure corresponds to the amount of thyroid secretion; the more thyroid the greater the pressure, and vice versa. A person's output of energy therefore provides some indication of the thyroid gland's state. When under-

active, the gland refuses its important duty of transforming foodstuffs into energy, the natural result of such non-co-operation being a reduced energy output and a piling up of surplus bodily fats. Providing that other organs are healthy, a normal thyroid type will maintain an even weight that is average according to height and age. Hyper-functioning of the gland brings about a swift reduction of the entire fatty tissues, and a restless, self-destructive energy—whereas subfunctioning shows its results in lethargy and a substantial weight increase, sometimes to the extent of acquiring fat in disproportionate layers and doubling the original, normal weight.

Effects of Malfunction

It has been discovered that removal, injury or subfunction of the thyroid gland is followed by an immediate change in intelligence. Since there are many causes and degrees of subfunction, no extreme performance of the gland is necessary to bring about some small alteration in the physique or personality, but the picture of the cretin (already described in Chapter I) is an impressive example of this gland's power over both physical and psychical qualities.

The cretinoid state is a direct result of sub or nonfunction of the thyroid. During its first few months a baby may seem, in appearance and behaviour, much like other infants, but at an age when some degree of intelligence or understanding is expected, together with other developments in bodily and facial appearance, the cretinoid type does not show such changes. If the condition is not recognized and treated, the child will grow in years, gain weight (through fat) but show small mental advancement. Very little, if any, 'mind' will be evident, since the source of 'mind' remains in its infantile state for as long as the thyroid continues to be subactive.

The normally functioning thyroid hormone makes for a healthy, close-textured skin, with fine, silky hairs evenly dispersed over the hairy portions of the body. One of the first signs of a faulty, subnormal thyroid, or one indication that the adrenal gland has gained dominance over the thyroid, is the gradual transformation of skin and hair to a coarser, rougher texture.

Thyroid-Adrenal Comparisons

The thyroid gland may be likened to an engine's carburettor which, if the jets are well adjusted, supplies exactly the correct amount of fuel and air for the engine's most able functioning,

without damaging the engine. An ill-adjusted carburettor makes for a clogged engine, one of diminished power, or supersensitive. Again, thyroid and adrenal glands may be compared to a motor-boat's engine and screw, as working in a kind of co-operation-opposition with keel and rudder. The first provides energy, the second guides or distributes it.

A 'primitive' or lower-level thyroid type is subject to the thyroid gland's virtual dictatorship over his body's appearance and behaviour; adrenal influence is powerfully counteracted. In individuals on a higher level, a finer balance between thyroid and adrenals is perceived, with more rational mental and physical qualities. When thyroid and adrenals work harmoniously, each fulfilling the demands of the other, there is a balance of functioning which shows itself clearly in the well-proportioned physique and behaviour of the subject.

The Pituitary[1]

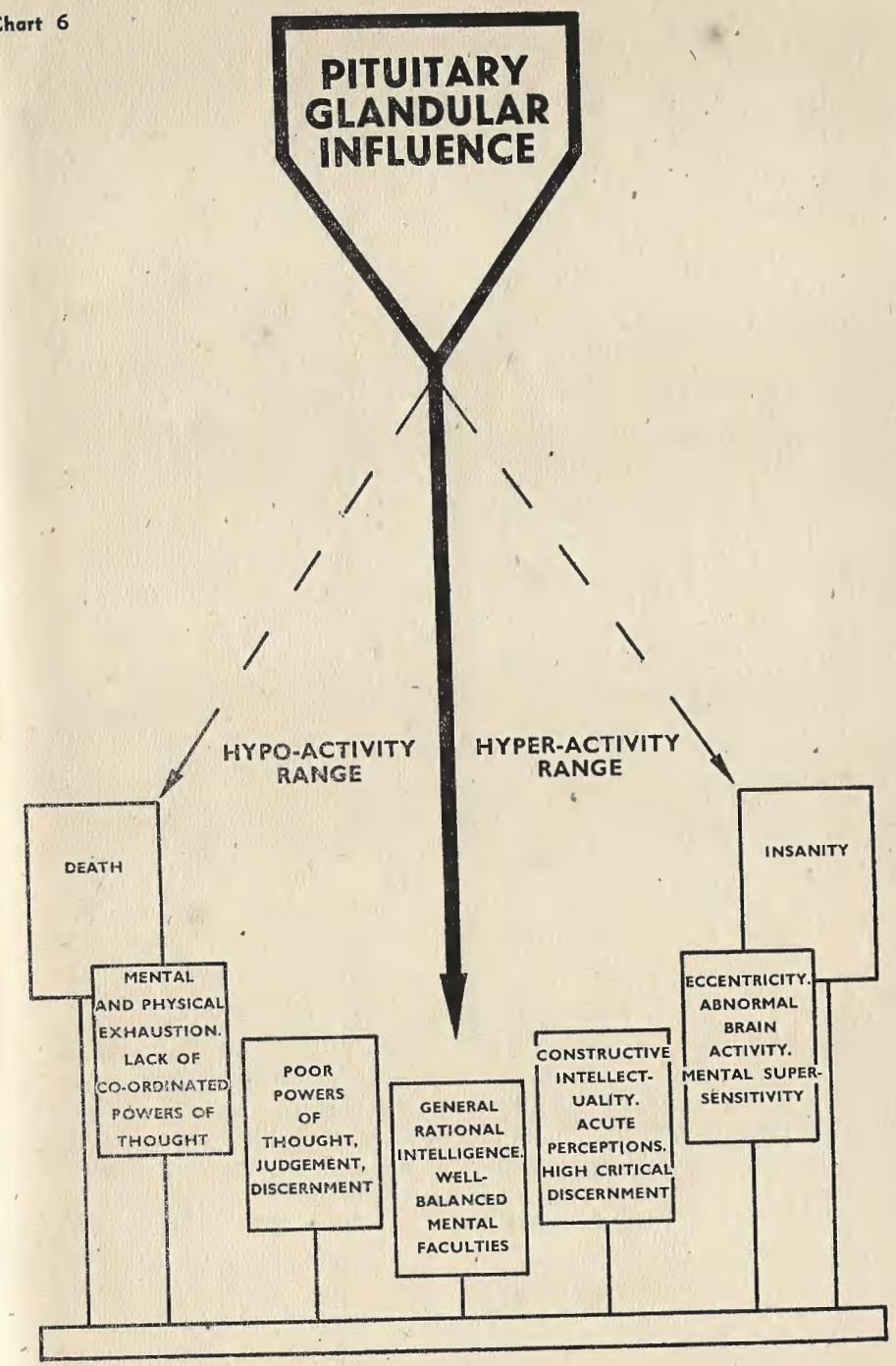
The Growth Regulator

The pituitary gland's part in the endocrine chain is perhaps the most vital, for its effects appear in all man's physical and mental states. In its workings lie many of the secrets of intellectual achievement and the tragedies of dwarfism and gigantism. Though no larger than a small pea, this gland, situated in a cavity of the skull, is to a large extent responsible for all skeletal growth and brain efficiency. In childhood the functioning of the pituitary determines the build of the body, the size of the basic features, the stature and cast of limb. If the gland is in a state of hyper-function all of the structure, or some part—such as the forehead, hands, feet, nose or chin—will be exaggerated in size.

This factor of growth is especially interesting. At birth an infant might be of normal weight and proportions, yet within six months may freakishly attain a weight of thirty pounds, and at the age of one year weigh sixty or sixty-five pounds. By the age of ten he will probably have tripled that weight and be six feet tall, and in another nine or ten years grow to a height of seven or eight feet. Such an unusual process of growth always points to hyper-functioning of the pituitary. One such case on record concerns a nine-year-old boy who weighed 178 pounds, and was six feet tall. At this age he was able to lift his father whose height was nearly six feet, and carry him about with ease. At eighteen years

[1]Chart 6.

Chart 6



of age this youth's height had reached eight feet three inches.

Such an extent of hyper-functioning is uncommon; in a less degree it occurs fairly frequently. Hyper-activity only at intermediate stages of growth results in such distortions as the unusual length and size of certain bones, a (*a*)[1] protrusion of chin or disproportionate length of jaw, arms too lengthy for the body's height, hands too large or head structure too wide or too long in comparison with the rest of the framework.

Pituitary hypo-activity causes a corresponding underdevelopment of various limbs or features, a stunted frame perhaps, one leg or arm shorter than the other, a (*b*)[2] receding chin—or other combined aspects of dwarfism. Normal functioning of the gland makes for a well-balanced framework, an evenness of feature, a symmetry of physical design. It may be safely assumed that any adult whose height is more than six feet has, during the years of growth, been affected by hyper-pituitary influences—or if his stature is abnormally short, hypo-pituitary. Apart from any such skeletal exaggerations or insufficiencies, no ill-effects upon health or mentality may be evident. The mentality of the giant or midget does by no means necessarily correspond in degree with his physical *size*.

The Brain Conditioner

Apart from the growth hormones, the pituitary produces others which, if functioning normally, re-enforce masculinity in men and femininity in women and supply 'tone' to the brain cells. This latter process of brain-cell stimulation may be likened to the electrical charging of acid in a battery which for efficient service must be charged to a certain degree of density. Undercharged it gives subnormal service; overcharged it may burn itself out. When the pituitary brain-stimulating hormones are overactive the brain is also hyper-active to an abnormal, self-destructive extent.

The rare quality of genius might easily be attributed to an abnormal activity of the pituitary. The depressions and elations, the soaring inspirations and abysmal despairs of the genius, and the insanity which sometimes results when brilliance is overstepped—all may be traced to a hyper-pituitary functioning.

When the pituitary is hypo-active, the brain behaves sluggishly and the person thus afflicted is noticeably dull-witted, slow in thought, incapable of any depth of reasoning or accumulation of knowledge.

[1](a) See Plate 14. [2](b) See Plate 13.

A comparison of the actions of adrenals, thyroid and pituitary on the body and mind shows that while the pituitary directs and controls the growth of bone and muscle, the thyroid governs the conversion of foodstuffs into energy and fat, as well as the building up of a healthy nervous system. The adrenals keep the heart pumping and the lungs breathing. They direct energy to the muscles and organs requiring re-enforcement, strengthen the skin against hard usage, and protect the body generally against infection and disease. The thyroid maintains the nervous system in a well-toned and resilient condition, thus enabling incoming sensations to reach their destinations undistorted for eventual imprinting on the brain cells, the termini. The pituitary assists the brain mechanisms to make the best use of such sensation-material, while the adrenals, always available for sponsoring physical or mental action, contribute—when such energy is needed—by directing 'action' nerve impulses to the relevant cells, muscles or organs. To summarise: the healthy thyroid influences the body's sensory impulses; the healthy adrenals sponsor and influence action of all kinds, and the healthy pituitary stabilizes and cultivates soundness and accuracy of thought and judgment. Were it possible to condense further, the thyroid type might be termed 'the feeling man', the adrenal type, 'the man of action', and the pituitary type, 'the thinking man'.

The Sex Glands[1]

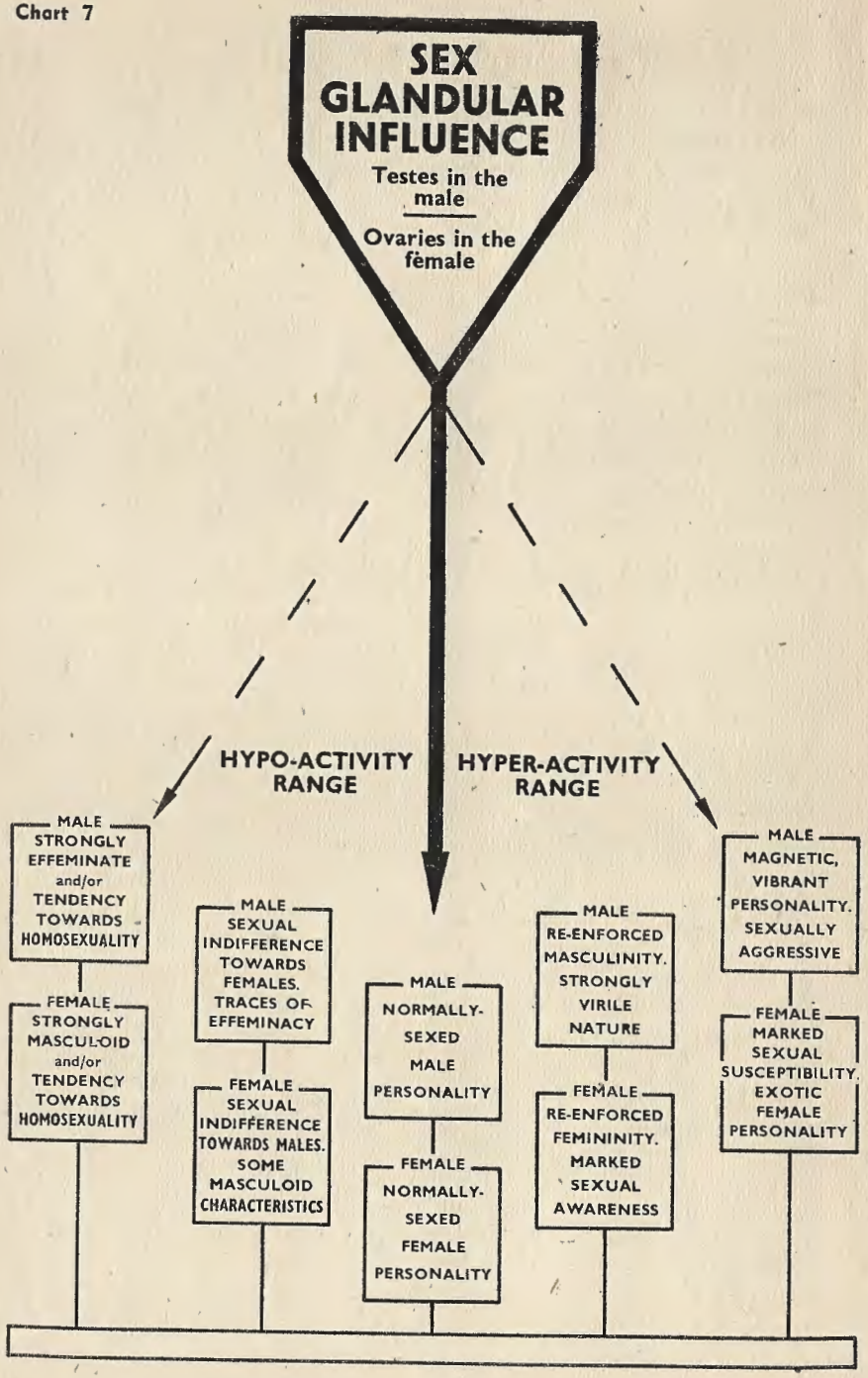
Sex: Mental and Physical Influences

The forming of a vicious circle is sometimes particularly discernible in the action of the sex glands upon the mind, and the mentality upon the sex impulses which may be stimulated by mental as well as physical processes. 'Sexual thinking' stimulates sex activity which in turn results in a greater intensity of mental sexuality. If this circle is allowed to revolve unchecked the results may be those of unrestrained sexuality (or immorality) with expulsion from rational society and a further abandoning of principle and self-respect. The behaviour of all those in whom sex is an obsession—including sex perverts—is often beyond mere psychological cure, for the interruption of the circle stimulation must be brought about more by medical than by psychological treatment.

The simplest possible definition of sex may be that it is "the sum of those peculiarities of structure and function that dis-

[1]Chart 7.

Chart 7



tinguish a male from a female organism". There are doubtless many other far more elaborate definitions, for in recent years the attention of the public has been directed towards a new and thought-provoking branch of psychology, the psychology of sex—which intractable study concerns inhibitions, sublimations, neuroses, fixations, obsessions, and a multitude of other abstract and concrete troubles often attributed to sexual maladjustment. Doubtless there are some truths to be found in the revelations of this new psychology, but dangers and fallacies do arise from the common tendency to stress the psychical forces of sex without sufficiently considering the purely physical facts. Sex has been printed in such headlines so often that one might conclude that life in the body is entirely motivated by its force, and that the sexual glands play by far the most vital part in the organism. Such an over-dramatized conclusion must necessarily distort the physical picture, no one portion of which should be so highlighted that the rest appears blurred or of negative importance.

It is not the purpose of this chapter to deal with the numerous complexes and 'itions' which are the psychologists' enthusiasms, but rather to re-emphasize the indivisibility of the physical-psychical states, and to point out again how a comprehension of basic behaviour may only be fully realized if the bodily functions are understood.

The sex glands form a part of the endocrine chain, and their contribution to the physical and mental character of the body is undeniably important. Yet they are by no means omnipotent dictators; their effects upon the thyroid, adrenals and particularly the pituitary are no stronger than the influences imposed on them by these glands. Part of their role is to colour the personality with masculinity or femininity—to re-enforce the basically thyroid or adrenal character with sexual properties. When functioning with normal strength they provide that combination of vigour and magnetism which has been termed 'sex appeal' in modern language. In functioning with insufficient force they occasion a sexual dormancy or impassiveness which shows itself in many other facets of character apart from that which is purely sexual.

Sex Differentiation

Although to most people the general background to sex is clearly understood, a candid summary is relevant in considering the normal physique and function of both sexes. The sex glands are of two kinds, namely the testes in the male and the ovaries in the female, each of these having two distinct duties. Briefly these

are (*a*) differentiation between male and female and (*b*) reproduction of the species.

Throughout the years of childhood, masculinity or femininity is not confirmed, until puberty, when certain secondary sexual characteristics become apparent, these (both physical and mental) being chiefly influenced by the sex glands. The identification of male sex at birth is made on the evidence of the type of genital organs of the infant. The child is considered 'male', although until the final determining at puberty, he is only *potentially* male—and in fact, neutral in sex. It may be indignantly pointed out that a boy child is very different from a girl, that his behaviour, his interests, his appearance, are all masculine—or that conversely, a little girl who shows all the inclinations of a woman-to-be could never for a moment be confused with her brother. However the fact remains that the apparent 'masculinity' or 'femininity' of the pre-puberty period is not mainly attributable to sex, but to those other formative glands which in the boy usually show themselves as adrenal in dominancy, and in the girl, thyroid. If a boy demonstrates the 'manly' qualities of aggressiveness, practicability, destructive energy and lack of girlishness, it is because of his basically adrenal nature, and not because he is male. If a girl is submissive, imaginative, sensitive and 'feminine', she is so because of her physically thyroid basis, and not because she is female. Sex distinction in children is much less emphatic than is commonly supposed; this distinction is rather an imposition from outside than an occurrence from within. Boy children are expected to be like miniature men; they are dressed in masculine clothing, encouraged in masculine interests. From their earliest days they are trained towards manhood just as little girls are given dolls and dainty clothing as a means of stressing their femininity. The sex distinction, however, remains entirely superficial; true masculinity and femininity are only confirmed with the onset of puberty when the secondary sex characteristics appear and with them the realization of an adult sex character.

The girlish little boy and the boyish girl child often perplex their parents and teachers who are apt to regard the first as priggish and lacking in natural boisterousness—and the second as playing a part entirely out of keeping with that expected of her. Sometimes the behaviour of such children causes doubts and fears as to their future character. The lament is, "But it's not natural for the boy (or girl) to dislike games (or dolls). . . . He (or she) is growing up to be a hopeless weakling (or tomboy)." Yet in the first instance, the boy, probably basically thyroid, may at adolescence take on all the attributes of masculinity just as the girl will gain the normal femininity of a young woman. In *itself* the unboyishness of little boys and the ungirlishness of little girls is no evidence of any future departure from their potential sex, but merely the natural outcome of glandular thyroid or adrenal dominancy in the childish body. In the normal child all sex is inhibited; the sex glands have no influence upon childhood physique or mentality. During the early years the main bodily programme is that of growth in bone, muscle and tissue, as well as the healthy normal cellular development of the brain and nervous system. At this period the pituitary, without doubt the 'chairman' of the endocrine group, is concerned not only with its direct influence on bone and muscle growth, but also with the stimulation and inhibition of various of the other glands' functions.

Until puberty then, the sex glands are dormant and with little influence upon physique or personality. It is only after the pituitary has established bone and muscle development that its other forces are brought into effect, and the thymus relaxes its inhibiting of the sex hormones. In the male the post-pituitary sponsors activity in the testes, and in the female the pre-pituitary the forces of the ovaries. Accordingly the secondary sex characteristics appear and with them the fruition of all the corresponding male or female potentialities.

Changes at Puberty

Normally at puberty a boy's voice takes on lowered, husky tones; the sexual organs develop and gradually hair appears on the face and in the genital region. Masculinity then is incontrovertible, for the sex potentiality has become an actuality. The girl's body takes on a womanlike form with the development of breasts and hips, hair appears in the genital region and the personality matures into undeniable femininity. In both sexes a sexual awareness occurs, usually in an aggressive form in the male, and in the normal female more submissively.

Both mentally and physically this stage is critical, for in the years of adolescence body and mind are vulnerable as never before. For a few years the childish elements linger, often in conflict with those of incipient maturity. While the physique approaches its adult state the mentality frequently fails to keep pace and is perplexed or frightened by the new demands and conditions imposed on a body hitherto untrammelled by sex.

There being in him no ready-made foundation for judgment, the young person seeks his own conclusions, sometimes cautiously,

more often rashly—and in so doing often puts himself in the path of unhappiness and disillusionment which fortunately is usually transient. In these years the basis of character is strengthened or weakened; through trial and error answers are sought by the young, questioning mind. And it is during these years that any inherent instability shows itself most clearly. The beginnings of insanity are often traceable to the latter period of adolescence, the ages of about seventeen to twenty years. At this least 'organized' stage of glandular functioning, any traces of endocrine disorder affecting the brain are usually manifested. The impact of sudden unhappiness, frustration or sometimes fear has a tragic effect on the young person whose physical and mental states are not yet stabilized.

'Growing pains' and 'puppy love' are often lightly spoken of by older people who may have forgotten that the era of growing pains and puppy love is highly emotional and complex; its pathos and comedy too often obscure the approach of real danger.

During adolescence the mental condition of the individual is powerfully influenced by his physical processes and consequently the importance of suitable environment and guidance at this time cannot be exaggerated. The growing body, the awakening mind, the necessity (more perhaps than at any other time) of making decisions which affect the whole course of living—stresses both from within and without—contribute towards making this period one of mingled extremes, heights of happiness and depths of despair. To the eyes of adolescent youth life may at one moment appear bewilderingly attractive and at the next a disenchanted and dismal business, himself the most wretched participant. Youth does not take readily to compromise or learn tolerance easily. The nearly adult body which must now enter fully into the world of grown men and women is not matched by an adult mind, for this must be gradually acquired as a result of adult *experience*. The false steps, the disappointments, the necessities for restraint, bring about the resolving of adulthood. The need for establishing forms of principle (tenets not only socially acceptable but also personally satisfactory) arises when, in the spheres of adult work and recreation, bewildering examples of avarice and self-sacrifice, ruthlessness, hypocrisy and generosity are witnessed for the first time through the eyes of the inexperienced. Friendships and associations play an emphatic part in this early character formation, their effects being strengthening or weakening, helpful or destructive. The achieving of mental maturity is usually not effected until long after physical maturity has been gained, and

sometimes never, if there have been early and severe disillusionments and a consequent aversion to all that is commonly called 'adult behaviour'.

The Menopause

Only at one other period of life is there such an unsettled condition of body, and consequently mind. Just as at puberty the gonads figure importantly in altering and developing the physique and personality, so do they, at the menopause, bring about definite changes in a woman's life. The menopause marks the commencement of a perceptible slowing down of all the forces. With the ceasing of the ovaries' function, sex life diminishes. The features begin to shrivel or coarsen and a slight hair growth may appear on parts of the face. All the glands are affected by this gonadal change. They must readjust themselves to a new condition. In so doing there is rarely any serious or immediate alteration to the personality, but gradually the full effects are noticeable. Temperamental adjustments must be made, the fact of declining powers recognized, the knowledge accepted that youth is irretrievably past. A nervous instability sometimes accompanies this change; fear may be evinced with the signalling of the body's waning resistance to minor ills and pains. A woman whose chief pride and interest has been the beauty of her body may view with increasing apprehension the onset of old age and the inevitability of physical deterioration. She may strive to camouflage the signs of age and to live in a hectic, selfish manner, snatching at sensations which she knows she must soon forgo altogether. Instability may be shown by her insistence that she is suffering from one or several maladies which necessitates the unceasing attendance and commiseration of her family and friends. More serious mental trouble may be manifested in forms of hysteria, profound depression, or general dissatisfaction with all that was formerly pleasurable and absorbing. As in adolescence the mental and physical states are in flux, and the need for the right type of environment and occupation (suitable, that is, to the individual's real needs) is again of prime necessity to ensure eventual stabilization.

Departures from the Normal

Hyper-activity of the sex glands is usually caused by the hyper or hypo-activity of one or more of the other endocrines. A thick or physiologically well-developed adrenal cortex is always associated with a strong virile nature in the male; hence it must

be assumed that powerfully functioning adrenals stimulate the testes to marked activity, while in the female the effect must be one of sexual (or ovarian) inhibition. Again, since the pituitary, among its other responsibilities stimulates the adrenal cortex which in turn affects the sex glands, it may be assumed that in mentally active, forcefully constructive types of men whose physical or mental powers are unusual, the sex activity must correspond with like energy and effect.

Following this line of argument, it would appear that in women of hyper-thyroid influence, it may be quite certain that the ovaries are likewise hyper-active, and that this highly imaginative, excitable, spontaneously emotional type is without question extremely susceptible sexually.

The rarity of hyper-sex activity in children has already been mentioned. There are, however, occasional cases in which the thymus and the pituitary have failed to inhibit the sex glands prior to the onset of puberty. This endocrine disorganization involves a precocity of sexual and mental development, although the growth of the child's actual bodily framework may remain unaffected. A boy of five or six years may demonstrate an unusual mental impetus and within the period of a few weeks or months he will show an extraordinary maturity of speech and behaviour. Although in most physical respects there is little alteration, the sexual organs will develop, hair growth appear on face and body, and the voice deepen and coarsen. Such an abnormal child has in fact the full sexual powers of manhood. When glandular treatment is administered there occurs a gradual return to the normal, with the cessation of the precocious hair growth, the diminishing of sex organs to their childhood normality, and the reversion of voice, mentality and entire personality to that which was natural to the child before he began to suffer from the quixotic behaviour of his glandular system.

The normal process of maturity is made up of many changes in physique and mentality, and because this process is generally recognized as both natural and inevitable it is usually taken for granted as a part of the business of living. Normality is commonplace; it is only the abnormal, the freakish, the other-than-anticipated which is greeted with incredulity and horrified curiosity. And it is abnormality of behaviour rather than appearance which receives the least tolerance, for it is so often wrongly assumed that regardless of his exterior defects and interior deficiencies, a human being must conform to the general behaviour pattern stipulated by the herd. Yet when the sex glands function

other than normally, strange cases of mixed sex types occur; both in appearance and behaviour they are not normal beings. They cannot look normal, for any hyper or hypo-activity of male or female sex glands affects in some greater or lesser degree the secondary sex characteristics which may appear in the male as feminine, or in the female as masculine. Always with this confusion of sex identification 'labels' there must be a like deviation from the normal masculine or feminine personality.

Apart from very rare occurrences, any disturbance of the sex glands is not likely in childhood. However it has been observed that children who after puberty show signs of gonadal deficiency, usually grow tall or have obese tendencies. The condition becomes clearly apparent with the non-development of secondary sex characteristics. A boy of this type exhibits the same physical and psychical symptoms as one who has been castrated; a girl will reveal the characteristics of one whose ovaries have been removed. The boy must lose much of his masculinity and become, both in disposition and appearance, effeminate. The girl is certain to become a masculoid caricature of what she might have been.

All this has nothing whatsoever to do with 'will-power' or any psychological 'ism' or 'ition'; it is simply a physical fact. No sexual neutralization or alteration may be occasioned by any other force than that resulting from chemical disturbances in the endocrine system to which the sex glands contribute.

Actual laboratory tests have demonstrated this purely physical reversion. In animals, in which from the psychological standpoint, the power of will is a negligible or altogether impossible quality, the reversion of sex may be occasioned without any prompting from outside stimuli. The change may be gradual but it is invariably complete; a male dog may become in every respect female and show sex interest only in other male dogs.

In view of the established facts concerning glandular influences upon body and mind, it cannot be denied that these combined forces are the basic directors of all that constitutes man's appearance and behaviour. Medical experiments have demonstrated beyond all doubt the power wielded by the gonads over the entire human framework and personality. A man, for instance, if castrated (especially before puberty) cannot fail to develop into an effeminate being with every physical indication that he has lost his basic sex. Facial hair is almost nonexistent; the voice remains high-pitched; the generative organs remain undeveloped, and the muscles, in general, weak. A castrated woman will in every instance become masculoid, with husky voice, undeveloped breasts and a

perceptible facial hair growth. In both cases there can be no sexual awareness or desire, and the mentality lacks lustre and spontaneity.

The Thymus

The Gland of Childhood

The thymus gland (situated in the chest behind the breast bone) has been termed the 'gland of childhood', and this is as accurate as any general idea of its influence may be. Research and experiment covering a wide range of subjects, shows that the thymic influence is at its strongest from the ages of four or five years until puberty—the gland's chief duties during that period being the stemming of gonadal activity.

At this time the thymus, if normally active, inhibits the activity of those hormones which are not concerned with the actual growth processes of bone, muscle, fat or nerve. Comparatively little else is known of its functions throughout those years. But it is certain that in a healthy, normal child, the thymus holds the gonadal influences in check so that until the approach of puberty, no especial sexual awareness occurs. The pituitary is engaged with the direction of bone and muscle growth, the thyroid with the extension and strengthening of nerve communications, the adrenals with the supplying of strength to the various organs and muscles, while the gonads (testes or ovaries) remain undeveloped and dormant. By means of thymic influence in childhood, the body and brain are given every opportunity for growth unhampered by the stresses of the various endocrines which, when all their forces are released, strive for supremacy of direction in body and brain. While the builders are at work, the thymus acts as a brake on those other hormones of the pituitary, adrenals and thyroid which, in an adult, stimulate and work with the sex glands. When the physical foundations have been laid, and the most vital processes of elementary growth are complete, the work of the thymus would appear to be finished, and in the normal individual its functions cease at the beginning of adolescence. Gradually the gland's activity diminishes; it shrinks in size and becomes a negligible factor in the body.

Hyper and Hypo-Function

It should not be assumed that in every person the thymus acts normally during childhood, or that its effects are always

unnoticeable after puberty. There are many children in whom the thymus operates either in a state of hyper or hypo-function. An example of thymus hypo-function was provided earlier when a hyper-function of the sex glands was described as causing a child's precocity of development and possession of a premature sex instinct.

Evidence of thymus hyper-functioning during childhood shows that the child has an unusually delicate constitution, with a corresponding fragility of build and a softness and grace of manner, completely devoid of the usual romping boisterousness of the healthy young person. Medical authorities state that many recognized critical 'ailments' in children can be traced to thymic hyper-activity. Instances of children 'holding their breath' until their parents are frantic because of their apparent suicidal intentions can be attributed to thymic disturbance. Also to such disturbance, some cases of sudden death in children can be traced. Such children sometimes die as a result of a mere fall, or from twisting their bodies into some extreme or unnatural position. Hyper-activity of the thymus in children also appears to leave them unresistant to many infections, particularly tuberculosis.

Thymic hyper-activity in childhood is occasionally followed at puberty by some degree of continued influence, this being maintained on through adolescence to adult life. Such adults appear never to develop true maturity of mind or physique; throughout their entire lives their bodies and personalities exhibit a certain strange childishness which is often admittedly appealing because it is so unusual. They are seldom normal sexually, although the actual extent of abnormality must depend upon the degree of thymic persistence. Dr. Louis Berman gives an apt description of the thymus's sphere of influence, saying of it . . . "the gland of childhood, the gland which keeps children childish and sometimes makes children of grown-ups."

Voices from the Laboratory

Space permits only the inclusion of a few quotations from the works of scientific authorities, but the following give some indication of the opinions held by men who are never given to vague theorising, and whose efforts are notable in the collecting of the physical data relating to human appearance and personality.

DR. L. F. BARKER (*Professor Emeritus of Medicine in John Hopkins University*).

"More and more we are forced to realize that the general form and external appearance of the human body depends, to a large extent, upon the functioning, during the early developmental period, of the endocrine glands. Our stature, the kinds of faces we have, the length of our arms and legs, the shape of the pelvis, the colour and consistency of the integument, the quantity and regional location of our subcutaneous fat, the amount and distribution of hair on our bodies, the tonicity of our muscles, the sound of the voice, and the size of the larynx, the emotions to which our 'exterieur' gives expression. All are to a certain extent conditioned by the productivity of our glands of internal secretion." (From "*The Glands Regulating Personality*," by Louis Berman, M.D.—MacMillan, Publishers)

R. G. HOSKINS, PH.D., M.D., *Director of Research* (*Memorial Foundation for Neuro-Endocrine Research, Research Associate Harvard Medical School*).

"One of the fascinating new chapters in the book of science is the story of the internal secretions. Their potency is almost unbelievable. Their influence is pervasive in all that we do and are. In the present they co-operate in determining the forms of our bodies and the working of our minds. In the past they may have set the pattern of our advancement through the ages. (*The Tides of Life*, Kegan Paul, Trench, Trubner & Co., Ltd.)

LOUIS BERG, M.D.

This writer, cautious in the making of admissions concerning the power of the glands says:

"Thus we see the thyroid as one of the most important determinants of personality. If it is normal, life becomes full and colourful; but if it is insufficient, existence is converted into a Stygian blackness."

Later he states:

"We stand on the threshhold of a new era: daily new discoveries show us the importance of the glands in the formation of the balanced personality. The scope of diagnosis of gland disorders is widening; the possibilities of treatment have scarcely scratched the surface." (*The Human Personality*, Williams & Norgate, Ltd.)

ERNST KRETSCHMER, *Professor of Psychiatry and Neurology in the University of Marburg*.

"As soon as we bring ourselves to look anew at the problem of psychiatry from the point of view of the whole constitution our anatomical interests also undergo a fundamental change. We no longer say, 'Psychic disorders are brain disorders', but we see besides the brain the whole complex of ductless glands (the ultimate stronghold of the chemistry of the body) which, though, indeed, always through the brain, has the profoundest influence on the psychic development. And then we remember that it is precisely the inner secretions which have an especially obvious parallel influence on two things: the general psychic disposition and the physiological development." (*Physique and Character*, Kegan Paul, Trench, Trubner & Co., Ltd.)

JAMES WHILLIS, M.D., M.S., F.R.C.S.

"The ductless glands, or endocrine organs, produce substances called internal secretions, which are absorbed into the bloodstream through the walls of the capillaries which traverse the glands. The secretions are carried in the blood to all parts of the body so that they can produce effects on structures at a distance from the glands which secrete them. Internal secretions belong to a group of chemical substances called hormones which all produce their action through the bloodstream. . . . As the secretions of all the ductless glands are being absorbed into the blood the healthy working of the body is dependent on their concerted action. The effect of depriving the body of one of these secretions may be due not so much to actual lack of that particular secretion as to a disturbance of the balanced action of all of them." (*Elementary Anatomy and Physiology*, J. & A. Churchill, Ltd.)

IVO GEIKIE COBB, M.D.

"The action of the glands in determining the bodily build is indisputable; and the mental outlook—the 'behaviour complexes'—appears to depend to a large extent on the glandular pattern peculiar to the individual; while the physical well-being undoubtedly depends upon the successful action and interaction of the various internal secretions." (*The Glands of Destiny*, William Heinemann (Medical Books) Ltd.)

F. A. E. Walker, *Professor of Animal Genetics, Edinburgh University.*

"The role of the sex hormones in this strange reversal of sexual destiny is even now fairly clearly understood and our present knowledge permits us to envisage a future in which many forms of personal and social disharmony will be repaired by means of the therapeutic use of these most potent modellers not only of the body but also of the mind, for already it can be shown that many of the problems of the psychologist need for their solution an appreciation of the facts of the newer physiology and biochemistry." . . . "Science which has enabled man to know the laws which govern the movements of molecules which drive the world on towards its destiny has also taught him that he may think of himself, with all his lusts and pains, his doings and his dreams, his beginning and his ending, as the expression of physico-chemical forces; even though, beyond and above these something other and additional may exist. It is this attitude of mind which has encouraged man to tear aside the veils which have concealed the problem of sex, and thus to learn that in all probability all expressions of sex are nothing more or less than the results of knowable, analysable, chemical mechanism." (From "Sex" in *An Outline of Modern Knowledge*, edited by Dr. Wm. Rose. Gollancz Publishers.)

Louis M. Berman, M.D.

"Different facial types are the expressions of underlying endocrine differences. The head and skull offer a number of clues to the controlling secretions in the blood and tissues. Whether the forehead is to be broad or narrow, the distance between the eyes, the character of the eyebrows, the shape and size and appearance of the eyes themselves, the mould of the nose and jaws and the peculiarities of the teeth are all so determined. The skin in its colour, texture, the quantity and distribution of its fatty and other constituents, eruptions and weather reactions, is influenced. All the mucous membranes, the colour and lustre and structure of the hair, as well as its general distribution and development, are hieroglyphics of the endocrine processes below the surface. Whether the muscles are massive or sparse, atrophied or hypertrophied, soft or hard, easily fatiguable or not, bespeak conditions in the glandular chain. In short, we must regard the individual as an immensely complicated pattern of designs traced by the hormones as the primary etchers of his development. Though it must be admitted that the number of unknown and unsolved relations in the pattern are still enormously great, enough has been established to make possible a rough working analysis of the particular organism placed before us for examination as Mr. Smith, Mrs. Jones, or Miss Smith-Jones. (*Glands Regulating Personality*, Macmillan & Co., Ltd.)

Many more quotations might be given, but from the books listed at the end of this chapter the reader may find for himself fullness of evidence that in future endocrinological research and discovery there lie many answers to questions of great issue concerning man's forces and deficiencies.

Summary

"If I Wasn't Me, Who Would I Be?"

Many object to the proven facts of glandular influence. It is argued self-will must be cancelled out; a picture of helplessness and human futility must be the natural outcome of endocrinological reasoning. Yet a consideration of glandular influence should not engender fatalism or pessimism. Our dependence upon a healthy glandular co-operation is no more to be deplored than our dependence upon, for instance, our lungs, which necessitate our living in an atmosphere which permits us to breathe. In order to keep alive we must rely upon the combined performances of all parts of our bodies, and these parts impose conditions for their functioning. But the body is not only our equipment; it is ourself, and only the conceit in man makes him rebel against the certainty that he is what he is—because he happened to be born of two other people. (A child once said, "If I wasn't me, who would I be?")

In smaller matters there is less dissatisfaction. A person is rarely seriously downcast because he lacks an 'ear' for music, although this must mean a *brain* for music. And one who has no gift for dancing rarely yearns to become an adept dancer. Few can truly believe that anyone could, if sufficiently determined, master any art or practice. There are usually other compensations in the way of ability or skill. In most people there are potentialities of some kind which, if recognized and cultivated, make for self-fulfilment. That we are all made of different material in the same general cast is not a matter for dismay. The miracle that we exist at all is surely sufficient. That our behaviour is largely influenced

by our bodies should be accepted as a stimulating truth, not a notion to be viewed with the gloom of defeatism. No one questions the body's proven workings in other ways—its reactions to common infection, its sleep requirements, its needs for food, water and air, its sexual demands—all that makes it a smoothly working unit. The facts of birth and death are accepted as commonplace yet these are no more mysterious than the daily process of living. It is understandable that our heredity is the prime determinant of our appearance and disposition. Why then should we object to the logical conclusion that, being what we are, we must behave according to a general hereditary determined character pattern?

Life does not become unbearable because we realize the stuff of which we are made and partially comprehend the workings within ourselves; this understanding should neither dim our pleasures nor restrict our ambitions. Rather it should clarify our desires and allow us to make the most of such useful physical and mental material as we possess. The general framework of our being is unalterable, but there is no reason why we should not use this basis to the best possible advantage of ourselves and those about us. Through environment and training of the right kinds, our talents can be fully utilized, our weaknesses strengthened, our liabilities and assets weighed and recognized.

Self-Responsibility

To assume that one's every action is governed by Fates in the shapes of glandular influences would be to embrace the most passive form of fatalism. To lay the onus for all one's faults on some glandular quirk of domination would be to deny any self-responsibility. The actions of the glands *do not put thoughts into a brain*; they determine whether thought is possible. Glandular action does not transform a man into a brilliant mathematician, but it might shape and tone his brain so that with study and application he may acquire marked mathematical proficiency. It does not predetermine a man's criminal life; his character may be unstable but the crimes themselves are not inherited. The right type of education and environment can be stabilizing factors. Energies may be diverted into non-destructive channels and the character cleared of violent exhibitionist or anti-social tendencies. We do not go through life clothed in a rigid armour of individual character, but all of us, equipped variously, are vulnerable to places and conditions, opportunities and examples. The French maxim: "A chacun son gout, à chacun sa vie, à chacun son métier" points out that each of us has a place in life where we are best placed for our own and others' happiness. A man should not be judged by his natural equipment, for he has had no voice in choosing it. But he is answerable to a considerable extent for the way in which he utilizes it.

The glands do not dictate a person's criminal tendencies, violence or treachery, but they do play a part in forming the type of brain, nervous and muscular mechanisms from which such behaviour may possibly and naturally emanate unless counteracted by the introduction and formation of useful and constructive habits. An adrenal type of man, for instance, is so equipped nervously and mentally that his actions are by nature instantaneously antagonistic if he feels himself in any way frustrated. Yet the adrenal quality in his make-up does not formulate the words and the thoughts which arise from his anger. The glandular action does, however, charge his body with protective, combative sensations which, if curbed and controlled by the right methods of education, can enable him to become a forceful or constructive member of any community. This applies not only to the most highly evolved adrenal type whom life usually offers scope for the best use of his natural powers, but also to the lower-level type who stands in especial need of understanding and the kind of environment which will retard the destructive elements in his nature, and bring to useful fruition his qualities of vigour, tenacity and fighting spirit.

A girl may, because of physical equipment, exhibit a marked emotional instability, 'immoral' tendencies which cause her to be labelled 'degenerate' or 'delinquent' since her conduct shows so little 'will-power' or self-control. But on these grounds her case should not be considered beyond cure, any more than if her trouble were one of more generally recognized illness. In each instance preventative and recuperative measures may be applied. Delinquency, if taken in hand before the damage is too great, may be cured by a regime, environmental, medical and psychological, the actual glandular actions controlled and self-discipline eventually achieved.

To object to the obvious fact that the workings of our bodies are linked with the trend of our actions would be as foolish as to lament that we were born with a certain build of physique, a certain colour of hair or a *retroussé* nose. These factors, like our rough pattern of disposition are determined, generally by the age of ten, by forces within us, the least of which is our 'will'.

Between the influence of the glands and the influence of

mentality may be set up an alliance which works either for the welfare or the detriment of the whole personality. Through training and education the mentality is enabled to a degree to counteract destructive glandular influences. Or a vicious circle may be set up, the results of which can be pitiful.

Conclusions

Although the actual glandular processes involved in influencing *every* physical and behaviour characteristic are not yet fully discovered, the results of thousands of tests are so conclusive that without attributing more powers to the endocrines than they possess, it can safely be assumed that they are dictatorial in all that we do or are.

As a basis for an enlargement of the subject in the following chapters it can be stated that:

1. People are different from one another in appearance and personality chiefly because the balance or dominance of one gland over another is, in each individual, different.

2. The mentality influences, and is influenced by the bodily structure, and neither can be regarded as separate from the other. The emotions of fear, anxiety, desire, anger, etc., must affect the body, and often disturb its health and appearance. Pain or illness in the body likewise affects the mind, behaviour and personality. The non-destructive elements of mental contentment, satisfaction and security, and the sensation of bodily health as logically make another circle though not as in the first case, 'vicious'.

3. Mental stress or excessive strain may seriously affect the entire endocrine system which in turn brings about a damaging effect on the body and personality.

4. Glandular 'types' may be recognized by their facial appearance, and/or their average personality and behaviour. By a careful study of a man's face his personality and innate ability may be determined with a great degree of accuracy. The shape of the bone structure of the ridge of nose, forehead, point of chin, etc., provide an indication of the true basic glandular type of the individual, whereby the true background of his personality through life may be deduced. The surface muscular and tissue development of the face (of brows, eyes and mouth in particular) shows the effects of environment and training, as well as the interworking balance of glandular influences since childhood.

5. If any one of the glands is forced into a state of hypo or hyper-function, there will ensue a far-reaching alteration in the entire make-up of the individual.

6. Regardless of what an individual makes of himself during life, of how he may build up his character or change his personality, shock, accident, disease, or counteracting environmental influences may cause him to revert to his underlying, basic glandular type.

7. Environment, training and glandular functional changes will leave their mark on personality, many times greatly altering it within the limits of the basic foundations. Whenever such a change is lasting or of long duration, its effects will be shown clearly on the surface facial development.

8. For the purposes of classification it is possible to divide the majority of people into two very general glandular type groups. These two main groups may be further subdivided into a number of smaller type classes which might be termed the adrenal, the pituitary-adrenal, the thyroid, the pituitary-thyroid, the mixed-sex and the thymic, all of these having variations within their category. Since every type has its own recognizable characteristics, the layman, with a little practice, should be able to identify them accurately. Type outlines are provided in some detail in the following chapter.

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Body and Will. Henry Maudsley, M.D. (Messrs. Kegan, Paul, Trench, Trubner & Co.)

CHAPTER III

MOTOR TYPES

(*Motor Types:* those persons, male or female, whose basic physical and mental characteristics are occasioned chiefly by the primary dominance of the adrenal glands—the outstanding points of disposition and behaviour being: practicability, single-mindedness, combativeness, energy and 'masculinity'.)

What a plastic little creature he is! so shifty, so adaptive! his body a chest of tools.

EMERSON.

General

IN all nature 'exact' types are the exceptions. Nature is said to abhor a vacuum, and it may also be true that she abhors regimentation. Human beings cannot be mathematically analysed. They are not static units; the make-up of their bodies is active, in a state of flux and subject to change, according to internal and external circumstances. Yet, *in general* the fundamental qualities of any man and woman may be estimated with indisputable effectiveness, since the physique is governed by, and the personality largely results from a recognizable system of glandular functioning. Minor alterations may occur in the healthy body, and indeed throughout life these continue unceasingly. But except in cases of severe illness, the main general pattern bequeathed by heredity remains the same. The leopard cannot change his spots and man cannot be other than the sum total of his intrinsic ingredients. He may develop his body, embroider and make the fullest use of his personality, but he has no materials to work on other than those with which he was born; he cannot graft on to himself any basic qualities. He may make the most of his self-material, or deteroriate within his own limits, but he has no power to acquire lasting characteristics foreign to his constitution. Any effort he may put forth in such an attempt only enables him to develop that which he already possesses, and to become, perhaps, better balanced, broader in outlook—a more complete person. But he cannot, by wishing it, *dispose* of hereditary qualities, supplanting them with others. For a time he may appear altered in every respect,

but eventually the basic material will assert itself, and very likely with greater intensity than before. No inference should be taken here that man should not strive towards self-betterment, but rather that it is wisest for him to acknowledge what he is, and concentrate his improvements within the orbit of his possibilities. "You cannot make a silk purse from a sow's ear," and it may as fairly be affirmed that a sow's ear (a no less useful or praiseworthy article) cannot be fashioned from a silk purse. It would be as futile to compare the values and importances of these, as to judge between the capabilities and temperaments of two opposite types of people; each has a niche in the scheme of life.

The 'average' person of any type is possibly more rare than is generally realized, for there are few people whose every aspect is entirely average. Yet for the purpose of considering basic qualities a picture must be drawn which contains no eccentricities. As the chart on page 40 indicates, the adrenal type is shown on a graduated scale, divided into three levels: lower, intermediate and upper. In order to obtain a clear idea of the adrenal-motor type as a whole, it is necessary first to consider the average individual centring each group, and to remember that there are graduations of type (within that level) both above and below this central figure.

A Lower-Level Type: Physique[1]

The lower the level of physical and psychical inherited development, the more primitive the individual, and the coarser or cruder his appearance and manner. He stands in broad outline, rugged in body, unsubtle in mind. There is in him a pronounced absence of grace, shapeliness, and the poised smoothness which comes from delicacy in bodily construction and co-ordination.

In its early stages the sculptor's first working model of a man bears little likeness to the finely chiselled, well-proportioned figure which may be eventually achieved. In the rough clay mass the various salient potentialities are discernible, but it is not until the head nears completion that the face is recognizable, bearing distinct human features. These are broadly hewn, showing only a general configuration, without any careful balance of bone and muscle tissue. Only after many stages of development does the figure emerge as a man, neatly formed physically, strong, lithe, and indicative of intelligence endowment. Yet in this evolved figure of *homo sapiens* can be traced those early beginnings, when

[1]Chart 9.

the clay bore the shape of a much less developed, far more primitive being.

In many ways this first rough form represents the lower level adrenal-motor type. His body is muscular rather than fleshy—

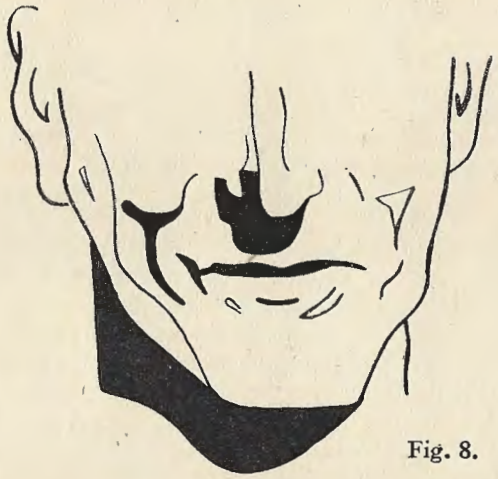


Fig. 8.

gauche and unfinished in general appearance, and in every respect[1] utilitarian rather than decorative. The skin is coarse, having none of that fineness of texture which is brought about only through generations of higher breeding. Its roughness is nature's protection against hard usage. Many authorities suggest that the skin of the adrenal-motor type is dark, but general evidence points to a need for revision of this opinion. It appears that a swarthy skin is not *necessarily* an average physical characteristic of this type. However, it has been established that the adrenal glands are the controllers of skin pigmentation. Thus, in adrenal types, a *clear* pink or white skin colouring is seldom found. On this lower level the adrenals' chemical action against sunlight protects the skin from burning or blistering easily. The skin darkens quickly, and in fact maintains a noticeable imperviousness to all hot or cold weather conditions.

The hips of the male are fairly narrow in comparison with the rest of the bodily framework, and the hips of the female much broader than those of the male. The female, whose primitive function is child-bearing, is in the less evolved types properly

[1]See Figs. 8 and 10.

LOWER-LEVEL MOTOR TYPE

PHYSICAL APPEARANCE	MENTALITY and EMOTIONS
General: Crudely shaped physique, muscular and bony rather than fat. Strong, rugged framework. Angular shape of head with 'cramped' or flat crown. Coarsely textured complexion; coarse or wiry hair.	Unprogressive mentality.
	Negligible imagination.
	Lack of foresight.
	Illiteracy: slowness in learning.
Forehead: Low and receding, with prominent, bony-ridged brows.	Very little sensory discrimination and appreciation. Slow response to pleasant stimuli; swift response to antagonistic stimuli.
Eyes: Narrow, deep-set, poorly muscled.	Violence of temper; swift prejudices.
Nose: Convex with narrow ridge and thick-flanged nostrils.	Poor powers of reason and analysis.
Mouth: Loose and poorly muscled, with irregularly formed full lips.	No refinement of speech or manner.
Chin: Flat or square.	Factual memory, limited in scope.
Hands: Blunt or square-tipped fingers with prominent knuckles.	Lack of patience, tolerance and consideration.
	Easily aroused suspicions and jealousies.
	No subtlety of outlook or purpose.

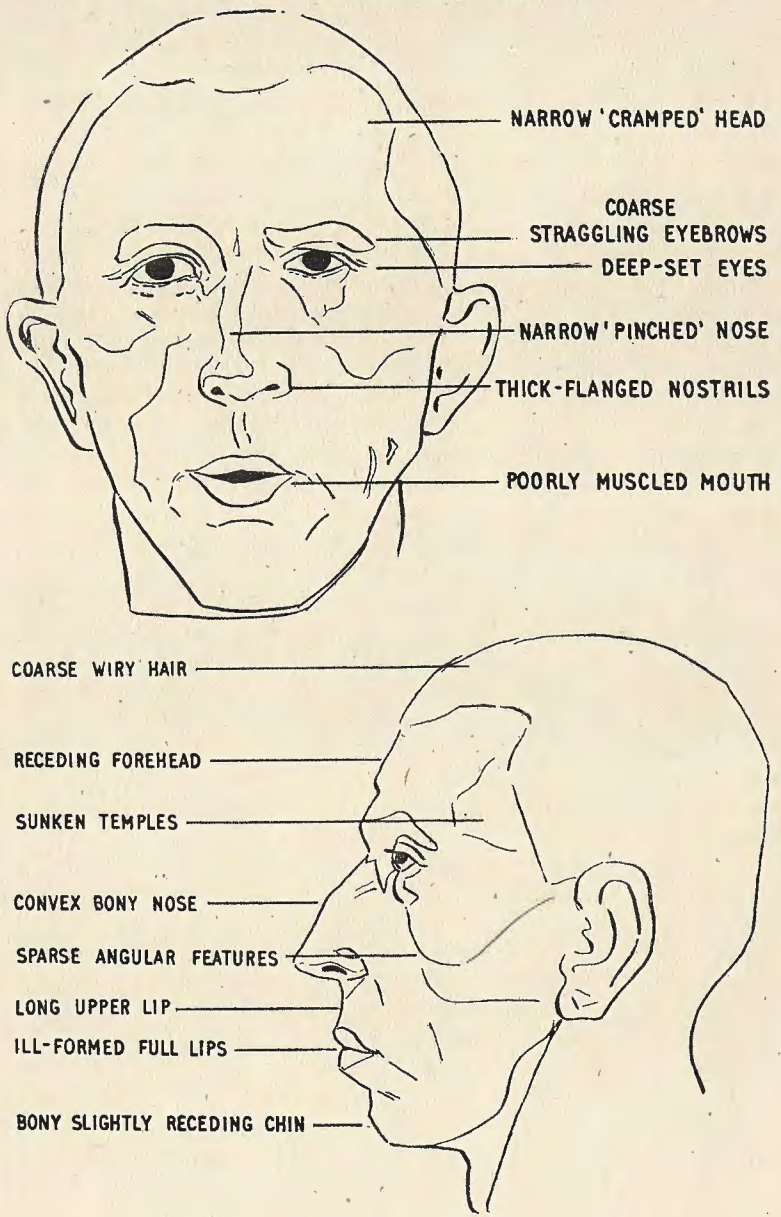
PHYSICAL ABILITY

Active vitality.
Marked powers of endurance.
Primitive physical alertness.
Forceful, crudely mechanical energy expenditure.
Capacity for manual work involving repetitive, unskilled movements.

Fig. 10

A LOWER-LEVEL MOTOR TYPE

(Male: Full face and profile)



shaped by nature to perform that duty. In this respect she differs much from her more highly evolved sisters (regardless of glandular type) whose narrow hips make childbirth for them a far more difficult and complicated process.

The hair is usually dark, of wiry or coarse texture, and bushy. In youth it is naturally curly or wavy, and in later years remains abundant. Adrenal types—particularly those on the lower levels—rarely suffer early baldness.

The hands are large, heavily boned or muscular, with broad wrists. Through manual labour the palms quickly develop callouses, natural safeguards against blister or bruise. The knuckles are usually very prominent, and the skin of the fingers tends towards excessive dryness, with a network of minute cracks and ridges.

The head, especially at the crown, is 'cramped' and frequently almost flat across the top. The forehead, seldom high, is wider at the brows than across the crown. Even when the height of the forehead is in proportion to the rest of the face, the hair tends to grow inwards on the upper forehead, thus accentuating the apparent restriction of the crown. The temples, as a rule, are slightly hollowed or sunken.

From profile view the forehead recedes, usually abruptly, and the crudely formed bony ridge of the brows is pronounced. The eyebrows, like the head hair, are coarse and straggling, seldom following any well-defined line or arch. Deep-set eyes are characteristic of the adrenal type. The receding forehead and prominent brow accentuate the effect of the eyes' narrowness and sunken position; there appears to be little space between the top of the eyeball and the brows. The eyes lack well-developed muscle structures.

The nose, generally rugged in shape and particularly bony in structure, has a convex ridge which may be narrow throughout its full length—or narrow only between the eyes (with a 'pinched' effect) and broader towards the tip. The flanges are thick, without that delicacy of nostril natural to higher types. The nasal apertures are large. The space between the nose and the red tissue of the upper lip is usually long, and the mouth itself loose in form and as poorly muscled as the rest of the face.

For many students of glandular types the mouth of the lower level adrenal-motor type is a confusing feature, because this (unlike that of higher level adrenal types) is generally full-lipped rather than compressed. Because on this level there can occur no marked mental or emotional conflict, the muscles of the mouth

and eyes remain undeveloped, and to a great extent the mouth retains its primitive, full-lipped (though ill-formed) shape.

Angularity characterizes all the features. The chin is bony, its contours mainly flat or slightly receding.

Same Lower-Level Type: Personality

Uncouth in shape, inharmonious in physical development, this type manifests a behaviour lacking in efficient co-ordination and control of energy output or movement. The reasoning processes, such as they are, are directed mainly towards self-protection and the attainment of essentials, food and shelter. The emotions are revealed as harsh and unrestrained; primitiveness is apparent in the entire personality.

Brain cells too cramped or loosely assembled, connected with an insufficiently developed sympathetic nervous system, and bathed in an unbalanced hormonal mixture, cannot be expected to cause the body to perform like that equipped with a highly evolved, well-shaped brain which is toned and stimulated by adequately balanced endocrine secretions.

It is the upper-frontal, sensory part of the brain which sorts out and reasons upon the information or problems transmitted by the central nervous system. In this type this upper-frontal 'department' is restricted, underdeveloped, and for this reason 'misinterprets' many sensations. Because of the inadequate facilities for dealing with them, such sensation messages are often pigeon-holed in perplexity, or passed along quickly, without attempt at analysis, to the lower-frontal (motor) part of the brain, for immediate action. Only the least complicated sense impressions received via the eyes, nose, mouth, etc., make any impression on the reasoning cells of the brain, while those cells which are concerned with motor activity are brought into a constant use which makes for their overdevelopment.

Although the mechanisms of the eyes may be organically capable of keen vision, the negatives from these cameras are rarely fully or clearly printed by the brain chemicals, and are only faintly or incompletely recorded in the 'dark rooms' of the brain cells. To all sensations received, the same inadequate reception is given. The mentality is constantly confused by the problems brought to it, and like a novice behind a public information desk, is inclined either to delay any answer to a question, or to reply impulsively and inaccurately. Often the simplest response is a helpless, "I don't know".

This type of brain is chiefly occupied with the most elementary

of cellular functions, and uses the greater part of its energies in one fundamental concern: self-protection. The body must be fed and kept on guard against any possible harm. Thus, all sensations received are interpreted and biased by one predominant factor, the self-protective instinct. Accordingly the horizons of thought are narrowed to enclose a small field, and the bodily defences are constantly alert, watchful for any word or action which might signal danger. Since this type is influenced by a strongly functioning adrenal gland insufficiently supported by other factors in the endocrine chain, he is well equipped for instant defence. An unpleasant sound, whether conveyed by actual words or merely through inflections of voice, is sufficient reason for his aggressive retaliation, sometimes in speech, and often by physical force.

Such types, although in a minority, form part of most communities. They are easily recognizable because both in appearance and disposition they live according to a clearly defined pattern which has few ambiguous half-tones or contradictory elements. A man of this type is the least complex of all; his nature is rarely camouflaged by superimposed cultural habits or efforts towards adjustment to a higher standard of living.

From childhood to maturity, while growing physically, he develops little in *quality* of mentality. His inherently restricted bodily make-up prevents any enlargement of his mental vision, and since his environment is unlikely to be mentally stimulating (even if he had any wish towards attaining higher development) he remains static so far as mind progress is concerned.

As a schoolboy, he endures an enforced education with bad grace, rebelling against the physical inactivity of the class room, and taking little interest in his lessons. His progress is painfully slow and as a rule his schoolmates are much younger than himself. Such a boy is often termed 'backward'; his teachers find difficulty in imparting to him any except the most simple elements of curricular education. Since his brain cells, lacking the toning of adequate pituitary and thyroid secretions, are in many directions undeveloped, his reasoning and analystical faculties are impoverished; he has neither the desire to acquire knowledge, nor the means of assimilating it.

Since he can show no prowess in learning, he is apt to exert himself mischievously and destructively; while his mental activity is feeble, his physical energies cannot be curbed. His teachers find in him an unanswerable problem, while his more timid contemporaries live in fear of his bullying. It is easy for such a boy to develop a truculent, anti-social disposition so pronounced that

it leads to petty theft and dangerous destructiveness. From such material juvenile delinquency frequently results. Punishment may develop fear in such a child, but it is the fear of a chastised animal, and any reform on his part is based, not on any rebirth of his conscience, but on the fact that certain actions of his + authoritative intervention = physical hurt to himself. Both as boy and man his attitude towards 'authority' is both scornful and afraid; he mistrusts 'softness', takes advantage of leniency and bears a grudge against anyone whose attitude towards him is uncompromising. As a youth he is surly and unimaginative, his many suspicions born of fear, his intolerance fostered by an inability to understand the true motives of others.

His boyish associates are much of his own type; his recreations are boisterously physical and frequently interrupted by fierce quarrels and longstanding 'feuds' the pretexts for which are invariably slight but sufficient for the inflaming of a disposition as antagonistic as his own. Since the parents of such a product must themselves be much of his own character, his home life can do little save emphasize the essential primitiveness of the boy's nature. In such a home poverty is usually inescapable; living conditions are consequently of a low standard, and diversions of a rough and quarrelsome kind. At an early age the boy is well acquainted with aspects of life unknown to most children. His natural aggressiveness and intolerance are therefore increased. Ill-equipped with reasoning faculties, he feels that physical force is of primary importance in the struggle for existence in a world he suspects of plotting to rob him of his rights.

As a man, his strength is shown by his sometimes astonishing feats of endurance, and all his movements are forceful, although not necessarily well directed. His walk tends to be slightly awkward, shambling or slouching; he takes little pride or interest in his personal appearance. He buys his clothes for their usefulness, and cares nothing for style or fashion. Occasionally he shows an untutored liking for colour, in the selection of a scarf or necktie of flamboyant, clashing hues. But for the most part he is content with a meagre wardrobe which he varies scarcely at all, winter or summer.

His work is manual, requiring little initiative or variation of routine. If carefully instructed, he is able to learn simple habit patterns not requiring skilled movements. He responds well to one set type of stimulation, and is capable of hard physical labour such as rough farm work, or navvying, but he must be closely supervised and an inflexible system imposed on his actions.

Unprogressive, he prefers to remain at one occupation; he is not troubled by ambition, nor disturbed by the monotony of his days. Lacking foresight, he lives only for the immediate needs of the present.

His eyes are long-sighted, but his brain is limited in recording any but the most obvious factors in what he sees. Any sensuous beauty of form or colour is but dimly realized; only the usefulness of objects impresses him. He lacks refinement of taste, smell, sight or touch. For him, food is that which solves the problem of hunger; he has little patience with daintily contrived dishes or those requiring subtlety of palate, and he cares nothing for the arrangement or dietetic value of his meals.

His imagination is negligible in any artistic sense, and his memory chiefly factual, although even this is limited in scope. His hearing, like his sight, is excellent and instinctive, but he is not able to practise any discernment in the beauty of sound. His sexual responses are particularly intense, his pleasures of all kinds derived always from realization rather than anticipation. In his marriage it is natural for him to be attracted to a woman from his own social level, and his home is almost certain to be much like that of his parents, although this factor is somewhat dependent upon economic conditions outside his control. He is likely to have a large family and to be constant to one woman in his sex relations. Married, his possessiveness is marked, and as a father his family-protective instinct develops from what had previously been merely self-protective.

In both speech and movement he goes bluntly to the point, usually without any forethought. His physical restlessness shows itself even in his recreations; it is necessary for him to be completely fatigued before he is able to relax. Although in many of his personal relations he displays an anti-social outlook, he enjoys being in a holiday-making crowd and exhibits no antipathy towards noise or discomfort if he believes he is 'having a good time'. Towards individuals he lacks consideration, and is inclined to be swiftly suspicious and generally intolerant. His judgment of his fellows is based either on haphazard material evidence or on hearsay. He respects physical power and possessions rather than any less assuming though more worthy attributes of character. Deeply rooted prejudices are part of his disposition. Having made up his mind about any matter, he is unlikely to alter his opinion, even in the face of changing circumstances. Persistence is natural to him, but not true patience. His ready antagonisms sometimes lead him to dangerous violence in temper explosions which are

startling revelation of that primitive force which underlies all his daily speech and actions.

Lacking thyroid balance, he responds slowly to any pleasant stimulus, but reacts swiftly to any unpleasant sensation and readily shows surly resentment, jealously or vindictiveness. It is typical for him to vent his anger on the nearest person or object, regardless of the innocence of his scapegoat.

He is incapable of subtlety in any form. His motives, though perhaps attempting cunning, are transparent. If he lies, his statements are illogical, bald, and without skill in construction. Since he lacks any finesse in facial expression, his eyes and mouth doubly betray any attempt at deception. His face, in all its moods, is ungoverned, and never a shield for his thoughts. The elemental qualities of pain, incomprehension, anger, satisfaction, fear, desire —all show themselves with a stark clarity less frequent in the faces of more highly developed or 'civilized' people.

This description, it must be understood, merely illustrates an outline of mentality which may be expected of this general type. In all men there must be variations in appearance and personality. The 'type' classification, therefore, must embrace slight alterations in physique and disposition. But in so far as generalities are possible the main characteristics of such a man typify those of all men whose physical endowment is similar to his own, and whose environment is likewise much the same.

Women of this type are more rare, since the strongly adrenal influence is mainly masculine. Such women, however, are like their male counterparts—insensitive, strongly built, harsh-voiced, easily angered, and noticeably unwomanlike in every characteristic. They endure physical hardship sturdily, and are able to work like men, since their stamina is essentially of a masculine order. Usually their lives lack comfort or refinement; they endure drudgery without ambition towards or expectation of anything better. Theirs are the most menial domestic jobs, unskilled factory or farm work—any kind of manual labour which requires only the unquestioning following of an elementary set of physical actions.

An Intermediate-Level Type: Physique[1]

The intermediate level adrenal-motor type is, like his prototype on the lower level, intrinsically 'adrenal' in appearance and disposition. However, despite general similarities, the many differences in detail indicate a higher degree or intelligence and a more

[1]See Chart 11.

Chart 11

INTERMEDIATE-LEVEL MOTOR TYPE

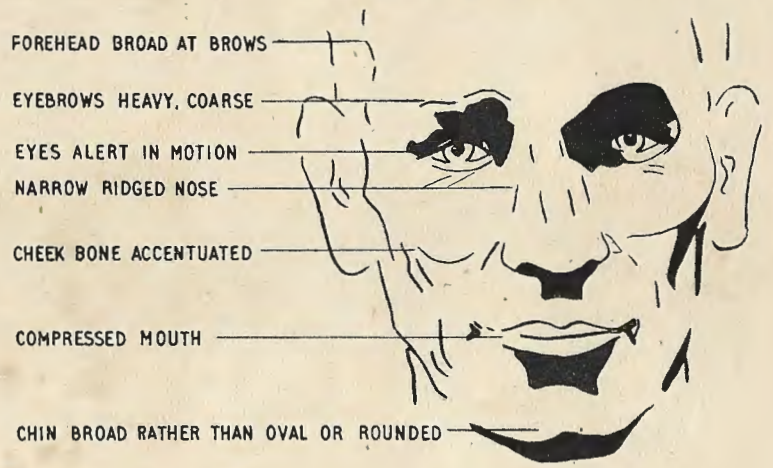
PHYSICAL APPEARANCE	MENTALITY and EMOTIONS
General: Well-knit body, seldom fat. Vigorous hair growth, usually dark. Angularity of head and face. Complexion of sallow tendency, although clearer than that of lower level type.	Limited imagination, constructive in practical rather than artistic ways.
Neck: Marked nape line.	Vigorous factual, inquiring mentality.
Forehead: Receding, of medium height with flat temples, i.e. neither full nor sunken.	Materialistic outlook.
Brows: Prominent and bony.	Critical, but resentful of personal criticism.
Eyes: Alert and deep-set. Upper and lower eyelids cover small portions of the iris, giving the eyes an appearance of narrowness. Coarse, heavily marked eyebrows.	Lack of sensitivity, tact and cultural refinement.
Nose: Convex, with ridge narrower between the eyes than at the tip.	Argumentative, quick-tempered, boastful tendencies.
Mouth: Upper lip thinner than lower, with compressed appearance.	Marked stubbornness and aggressiveness, frequently shown in brusque or tactless speech.
Chin: More muscular than bony or fat. Pronounced 'ball' or squareness at tip. Female chin is often pointed.	Basic mistrust of others motives.
Hands: Fingers usually square-tipped with slightly prominent knuckles.	Regard for punctuality.
	Fair powers of systematization.
	Selectivity in forming friendships.
	Single-minded, one-track mentality.

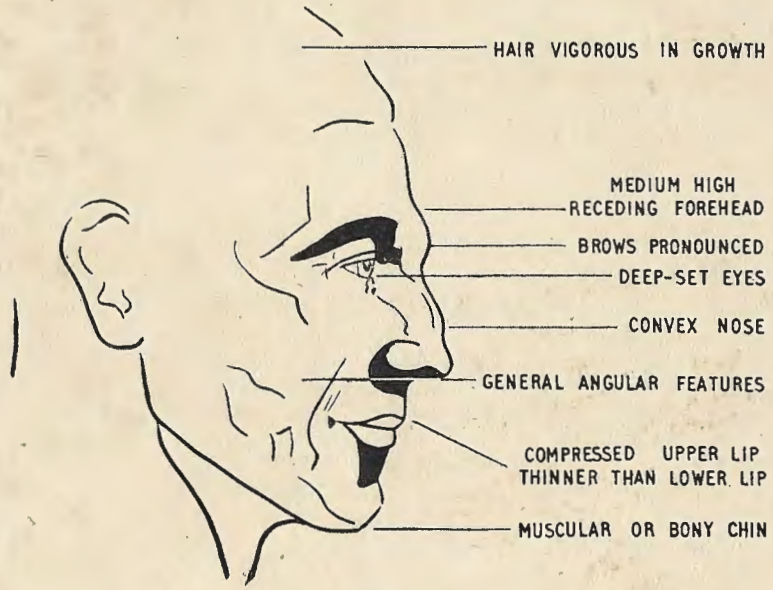
PHYSICAL ABILITY	
Manual dexterity and ingenuity with considerable capacities for development.	Long-sighted vision with accurate sense of sizes and proportions.
Comprehension for and interest in the workings of tools and mechanical instruments.	Swift movements, often instinctive, especially at times of emergency or crisis.
Aptitude for carpentry, mechanical or constructional engineering work.	Rapidity in speech.
	Capacity for concentration on minute visual details.

Fig. 12

AN INTERMEDIATE-LEVEL MOTOR TYPE

(Male: Full face and profile)





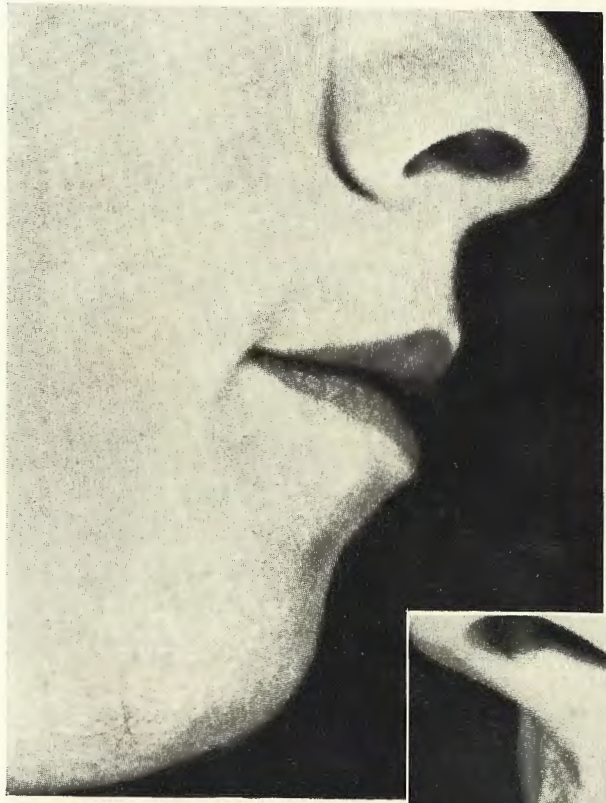


Plate 13

RECEDING CHIN

Evidence in odult life of hypo-function of the pituitary gland during childhood (Chapter 2)

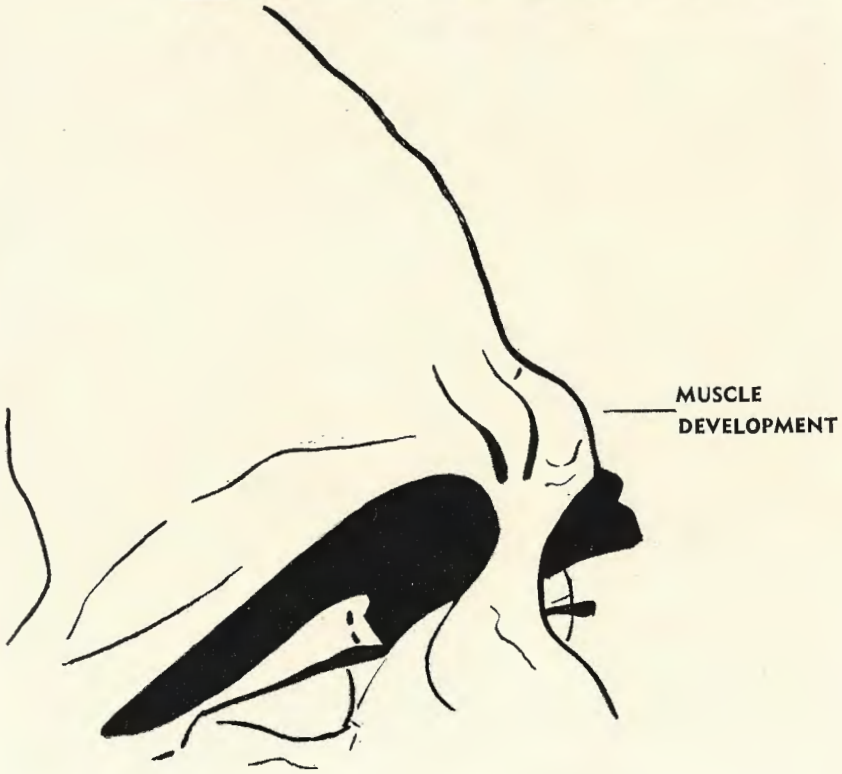
Plate 14

PROTRUDING LOWER JAW

Evidence in adult life of hyper-function of the pituitary gland during childhood (Chopter 2)

Plate 15

". . . the brow muscles are pronounced." (Chapter 3)



balanced form of behaviour. There being a more co-operative functioning in his endocrine system, the body, head and face are less roughly proportioned. The mould of feature is more finely cast than that of the lower, primitive type, and the disposition more amenable to higher standards of environmental influence. The sculptor's clay, having emerged from its first crudity, now shows a less elemental form, an intermediate shaping in which the potentialities are more clearly visible. The outline, although sharply cut, has greater delicacy; the strength remains but it is humanized. The impression of unthinking energy is lessened, and in its place a more ably controlled vigour is revealed.

The average height of a man of this type is approximately five feet seven inches—and of women, five feet five inches, although height alone is no criterion. In both sexes the entire physique is spare, of noticeably clear-cut proportioning, the bones long or large, the muscles lithe and wiry. The shoulders are peculiarly square, their breadth marked in comparison with the hips. In comparison with height the body is seldom fat but maintains well into middle age a steady, average weight which is not particularly affected by alterations in diet. In this type worry or mental strain reduces the weight more swiftly than any unbalance of nourishment.

The chest dimensions of the male are marked neither in breadth nor narrowness; the bust of the female is usually small or compact. Compared with those of other types, the hands and arms of both sexes are strong and lean, yet firmly muscled, facilitating flexibility of movement. In a large percentage of such men and women the legs are *slightly* bowed, though this characteristic is often barely perceptible. Of the hands, the fingers are usually more square-tipped than rounded or pointed, the knuckles being slightly prominent.[1]

Head and face are angularly drawn, with a marked nape line. The forehead is of medium height, receding, and while equal in width across the top and bottom (or perhaps slightly narrower across the crown than the brow), shows no cramping of bone or muscle. Although less crudely shaped than that of the lower type level,[2] the brow muscle or bone formation is pronounced. The temples, usually flat, are neither full nor depressed. The cheeks are not rounded but 'flat' or even sunken, with the line of cheek-bone accentuated. The eyes are deep-set beneath the brows. Naturally alert in motion, they show keenness and penetration;

[1]See Fig. 12. [2]See Plate 15.

their vivacity adds to the general impression of facial mobility, liveliness of expression—a swiftly changing tensity.

The upper eyelid covers about one-third of the iris, the lower lid being drawn up to or slightly above the lower part of the iris. Because of this construction the eyes seem narrow, and more deeply set than they really are. Slightly slanting ('Oriental') eyes are more natural occurrences on this level than on any others. In such cases the eyebrows also slant upwards, away from the root of the nose. Usually after the age of twenty-five there is a drooping of the upper eyelid at its outer corner.

The eyebrows are heavy and coarse, or wiry, but well drawn, following a fairly evenly defined arched or straight line. Usually their colour is dark brown, though light eyebrows are not uncommon. The head hair is generally wavy, vigorous in growth, and seldom of fine or silky texture.

The nose is convex, a thin ridge following its full length. If not narrow throughout, the narrowness is greater between the eyes than at the tip. Between nose and upper lip the space is fairly long, describing a slight inward curve. The upper lip is thinner than the lower, and usually compressed or contracted when in normal position. Sometimes—though this is not an average characteristic—the mouth is irregularly shaped.

In the male, the chin may be square or broad in shape rather than oval or round, whereas in the female this feature is generally pointed. In either, muscularity is more pronounced than fleshiness.[1]

The complexion, although tending towards sallowness or 'muddiness', is more refined in texture than that of the lower-level prototype.

Whether viewed in full face or profile, the features of this intermediate-level type, regardless of sex, are noticeably sharp and angular. Because of the generally tensed muscular condition the face reacts swiftly to strain, ill-health, or toxic state of the body, the results being a sagging or haggard expression, and a dullness of eye.

Same Intermediate-Level Type: Personality

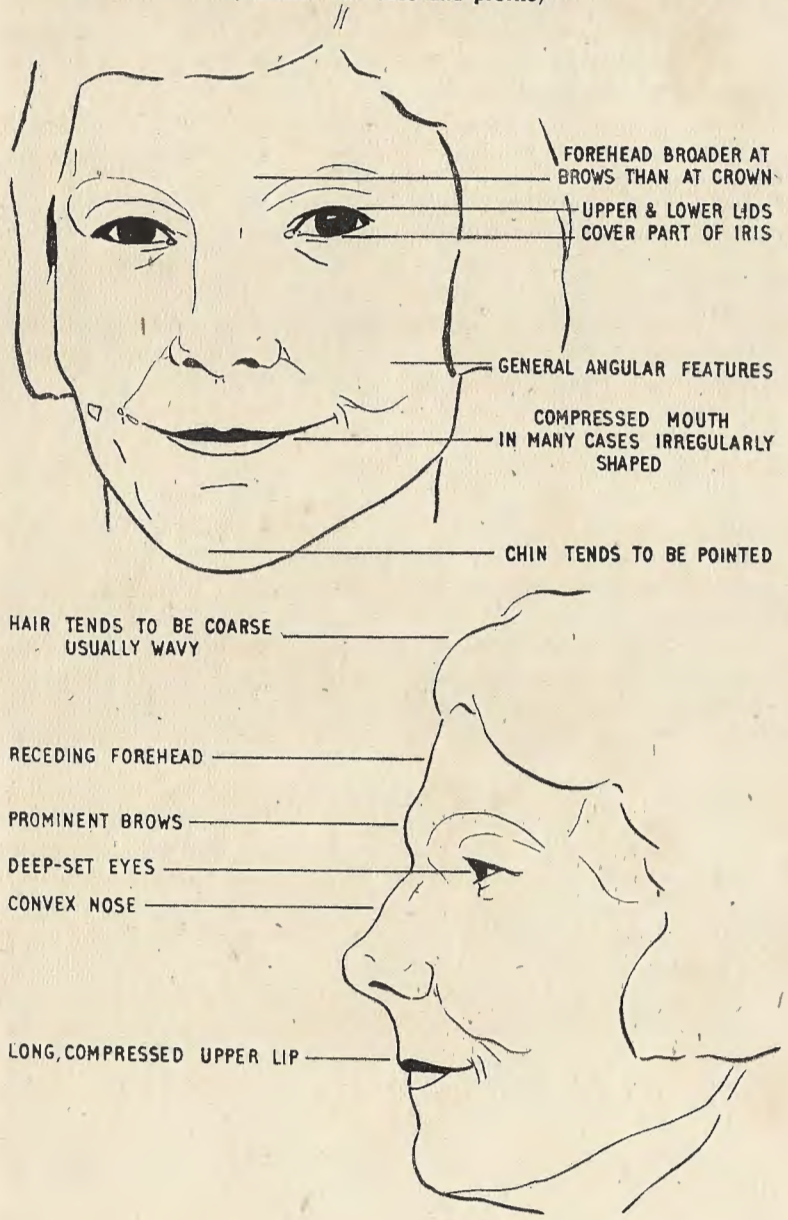
Throughout the entire adrenal-motor scale (ranging from the lowest level to that on which the pituitary and adrenal influences are in almost perfect strength and balance) the motor part of the brain is always more developed than the sensory. At all stages the sensory or reasoning factors of the mind are subject to this powerful 'motor' domination.

[1]See Fig 16.

Fig. 16

AN INTERMEDIATE-LEVEL MOTOR TYPE

(Female: Full face and profile)



The adrenal-motor type which stands half-way between the primitive and the well-balanced states, maintains a higher degree of general intelligence and rational activity than does his lower-level prototype, and while his behaviour may reflect similar characteristics, these are to a considerable extent modified and controlled.

Such a man is better able to harness his energies usefully, to work towards a goal and to benefit from any advantages in his environment. His mentality is vigorous and essentially practical, his brain being fairly well equipped for sorting out and resolving the varied sensations transmitted by the nervous system. The brain cells, grouped into a more compact 'fit for service' mass, make for greater effectiveness in mental functioning.

A sharply inquiring attitude characterizes a man of this type. He is interested in facts, in all that is tangible or of practical value. Manually deft, he works well with tools or instruments. In his constructive application he is quick and usually painstaking, deriving much satisfaction from the product growing beneath his hands, and able to analyse its possible faults for correction in a second attempt. He readily achieves a high measure of proficiency in mechanical movements, and depending upon his educational opportunities, is able to master almost any manual trade in the nature of carpentry, elementary engineering, mechanics or constructional work. It is possible for him to develop sufficient skill and judgment for his undertaking such limited supervisory responsibilities as are accorded 'gangers' or 'working foremen'.

His eyes are long-sighted, taking in much detail at a glance, and capable of estimating sizes and proportions with marked accuracy. Beauty of form and colour is less appreciated however, size and texture being of primary interest. Such a man is able to concentrate his attention with precision on minute objects. Machinery fascinates him, since in most mechanical apparatuses the elements of cause and effect are clearly visible and subject to human control. It is characteristic of him always to prefer the clear-cut logic of material things rather than the more abstract fluidity of theories and ideas beyond the realm of the purely factual. It is likewise natural for him to seek concrete explanations for most phenomena. Since his outlook is mainly materialistic he is apt to mistrust or avoid anything which cannot be 'pinned down', or translated into terms which are related to the facts of daily living. For him life has clear divisions and taken-for-granted boundaries. As a rule he accepts the orthodox facts of 'right' and 'wrong', the intermediate shadings of either being beyond his comprehension.

He appreciates always the down-to-earth approach, avoidance of sentimentality, the direct attack, the unhesitating reply. He is the kind of man who is adept with time-tables and railway guides, and inclined to be contemptuous of those who are less systematic than he in their elementary calculations of time or money. Punctuality is natural to him. Because he seldom deviates from any course he sets himself, he gains a reputation for dependability. In any enterprise, from a shopping trip to a day's work-schedule, he mentally tabulates the items on his programme and only unusual circumstances will cause him to omit the fulfilment of any one of them. By no means a fatalist, he does not depend on fortune or chance to assist his progress. He is, in fact, an opportunist, although only on a small scale.

A man of this type suffers no shyness, nor any acute conflicts of conscience. Lacking sensitiveness, he shows no trepidation in asking for what he wants, or complaining about another's shortcomings. Without being aware of it, he is frequently brusque or impolite. Tact he regards for the most part as a womanish and unnecessary quality. His only subtlety is shown when he wishes to mould a circumstance favourable to his own interests. He is unlikely to entertain more than one point of view about any question. In argument he is loud-voiced and stubborn, swift to lose his temper or give way to personal antagonism or resentment. It is his belief that by a show of physical anger he may subdue or bewilder his opponent into agreeing with him. Even when his knowledge of a subject is entirely superficial he enjoys demonstrating his opinions. His is usually the last, but by no means the most illuminating word in any discussion. Emphatic in verbosity, his boastful inclinations are sometimes naive, more often aggressive. He keenly resents criticism even when it is constructive, but is himself swift to criticize others. While admiration is not, for him, a necessity, he enjoys praise; he, however, is grudging in his compliments, since words of gratitude or selfless enthusiasm scarcely exist in his vocabulary. His sense of humour is limited to the most obvious. Practical jokes (of which he is not the victim) he enjoys, and he often finds the humiliations of others laughable.

He is at his best in an emergency. At the least hint of danger he is instantly stimulated to meet the demands of the moment, and his actions are instinctive, inhibited neither by reflection nor muscular fear-paralysis. At the scene of any street accident, fire, robbery or natural disaster, a man of his type invariably material-

izes to assist or take charge of some part of remedial activity. It is likely that he derives an almost pleasurable excitement in the pitting of his wits against the forces of an acute crisis.

His senses, though on a more evolved plane, still lack refinement. His recreational reading is slight and of a 'blood-and-thunder' type. Although factual in his outlook he will accept the incredible in books, so long as they are mainly concerned with physically turbulent action, the plot is easily followed and the characters boldly drawn. He is bored with other than 'popular' music, or tunes with a 'catchy' rhythm. For colour he has little interest; no lack of harmony troubles either his eye or his mind. Occasionally, he shows some desire to know more about the cultural aspects of life, but as a rule he indicates that he hasn't much time for 'that sort of thing'. Since it is not natural for him to be dissatisfied with himself or to recognize any lack in his general composition, he is unlikely to pursue any cultural study for the sake of self-betterment. Such imagination as he has, is practically constructive rather than creative in the widest sense. His memory is reliable for objects seen, but not for any subtlety of visual or vocal impression.

In his friendships he is selective. Although he may have a wide circle of acquaintances, his genuine companions are few. Towards these, however, he displays generosity, although he likes this to be visibly acknowledged and appreciated. Quite often any charitable action of his is motivated by his wish to obtain some service or return favour. Complete unselfishness or self-sacrifice is a particularly rare trait in him, since it is almost impossible for him to subordinate his own tastes or desires to those of another person, or to deny himself any anticipated pleasure in order that another's enjoyment may be increased.

An adrenal-motor type of woman on this intermediate level shows most of the foregoing characteristics, and although many of these are softened by the elements of femininity, the general picture is one of masculinity. Unimaginative, practical, dexterous, swift in movement, sharp of tongue, restless, single-minded and hard working, she is a woman whose independent, forthright attitude is revealed in every word and action. She is vivacious rather than good humoured, but her gaiety is unstable, and an exchange of repartee might often be expected to end in an uncomfortable tension.

When man and woman of this type marry, the uncertain tempers of each make for difficulties. Although the home itself would be capably managed there would be little serenity. The

tactlessness of both parties would be a factor conducive to constant annoyance; each would attempt to dictate, to interrupt, to supervise and monopolize. Criticisms would be frequent, resentments ensuing. If, however, only the female partner were of this type level, the household and family activities, in their every detail, would be controlled by her, and with this singleness of direction there might be less reason for friction. If, alternatively, the man alone were of this type and his wife of another, the husband would doubtless keep his family in obedience to him and enjoy his masculine position as provider and undisputed dictator.

Motor Type Variations

General

There are, it must be realized, many variations of the adrenal picture. The characteristics of the basically adrenal type on each level may be exaggerated or moderated, depending upon the gland's possible state of hypo- or hyper-functioning. There are, for instance, many degrees of aggressiveness and natural irritability, ranging from the spasmodic or slight to the ungovernable or sustained. Although with the gland's possible alteration in strength of functioning the subject's traits appear to be considerably altered, the fundamental type classification remains. The usual adrenal characteristics stand, but their emphasis is changed.

In extreme cases of adrenal malfunction there is need for medical attention, and indeed the recent advances in glandular research may now be the means of saving the lives of many sufferers who in past years would have been regarded as incurable, or at best sentenced to the slow misery of chronic invalidism.

Hypo-Adrenal Biases.

Adrenal malfunctioning is usually brought about through prolonged and severe emotional stress or shock, through some serious infection, or simply because the gland itself is physiologically too large or small. The results of its faulty behaviour show themselves clearly in the physique and personality, particularly if the subject has previously been in good health and exhibited all the indications of healthy normality.

The more extreme and rare disturbance of the adrenals is that called 'Addison's Disease', and a full description of this may be found in two of the books previously mentioned, namely: *Endo-*

crinology in Modern Practice and *Recent Advances in Endocrinology*. This disease is characterized by extraordinary physical and mental exhaustion, a darkening of the skin pigmentation, an irritability of the stomach and a wasting of the body. And unless the adrenal cortex is promptly re-enforced, as it may be by modern methods of injection, the patient's life cannot be saved. The occurrence of 'Addison's Disease' (though rare) is mainly in adrenal types—just as goiterous and other thyroid complaints invariably arise in those individuals who may be classified as 'thyroid'.

Lesser disturbances of the adrenals may likewise be clinically treated if the symptoms are recognized as indicative of adrenal malfunctioning. Often, however, the danger signals are not correctly interpreted for they involve a general weakness which might at first be attributed to insufficient rest, or malnutrition. But with the passage of time the symptoms intensify. The exhaustion increases; there is a lack of ambition and a sense of depression and frustration. There are indefinite headaches and a steady loss of weight. The circulation is poor, the sexual function weakened, the blood pressure low, the limbs (and especially the knees) lacking in power of movement. The majority of cases of hypo-adrenia occur in men.

'*Neurasthenics*'

'Neurasthenia' is yet another trouble which often has for its background the malfunctioning of the adrenals. This is not a disease but a troublesome ailment first described by Beard, an American doctor, as "a general disturbance of body and mind". People suffering from this trouble are often, to their own detriment, obsessed by the peculiarities of their illness; although organically their bodies are sound, they find great difficulty in believing this to be so. Sufferers from insomnia, they gain little relaxation from their nightly rest, yet during the daytime they are lethargic and scarcely able to keep awake. Their powers of concentration are thus severely impaired; they worry incessantly about their condition and are apt to become irritable at the slightest provocation. Such irritability is sometimes diagnosed as an indication of a frustrated 'will' which recognizes its inability to control and strengthen the body's health and general behaviour.

This neurasthenic state is commonplace. Sometimes it is called 'general debility', 'nervous debility', or even 'a nervous breakdown'. In large towns and cities where in this competitive age of progress men must hustle and bustle to earn their daily bread, and where fears of insecurity, of losing custom or prestige,

lurk in each tomorrow—neurasthenia takes its toll. Any business man who must always be forceful and efficient, wary against his competitors, punctual in his appointments, alert less he miss opportunities, is a potential neurasthenic *unless* he is particularly well equipped adrenally, in which case he thrives on combat, makes his commercial feints and thrusts vigorously and without fear, and is able to forget the day's anxieties when the day is ended.

Country people are much less liable to neurasthenia, for their pace of living is usually more natural, and the effects of anxiety are to a considerable extent neutralized by healthful conditions of working. In any case the functions of the adrenal glands are rarely impaired by hard work, but rather by the combination of excessive strain, an unsuitable environment and insufficient relaxation. Students who fear their possibilities of examination failures, and who consequently spend their days and nights in desperate 'cramming' (which overtaxes the brain and brings about the accumulation of bodily toxins) may become pathetic neurasthenics in whom the seeds of inferiority complex may well develop. Whenever the body is forced to a sustained attempt at that which it cannot naturally perform, when mental and physical energies are constantly exhausted in the effort to reach certain prescribed goals or to endure certain uncongenial conditions, whenever the body has to rely on increasing doses of stimulants or narcotics if it is to behave with continued vigour—then in certain types there arises a danger of serious adrenal deficiency, or, if you prefer the term, 'neurasthenia'.

The physical signs of this are well known: the features are strained, the eyes dull or feverishly bright; there is a nervous irritability which betrays itself in temper explosions over the most trivial matters; there is an unnatural tensity of movement which alternates with periods of complete exhaustion; there is an egotistical preoccupation, a querulousness and a negation of all the qualities of real sociability, lightheartedness, spontaneity and optimism. Eventually, if no respite is forthcoming, the goaded, overtired body refuses its tasks and the subject is recognizably ill—whereas in the previous (and more easily remedied) phases he was merely 'nervy' or 'in need of a holiday'.

Many people are, physiologically, hypo-adrenal types, their adrenal deficiency only slight and rarely prompting them to seek medical advice. The hypo-adrenal characteristics are so interwoven with their accepted personalities that no especial notice is taken of their quick fatiguability, their minor irritabilities, their

lack of ambition or physical courage. In physical appearance such types may be scarcely distinguishable from the normal adrenal subjects; there is the same kind of bone formation, and the same angular cast of features. Yet there is a tendency towards excessive thinness, especially of the face. The cheekbones are pronounced and the eyes seem strained, lacking mobility and keenness of perception. The bodily condition of such subjects is often toxic, and has only a feeble resistence to small infections.

The foregoing descriptions apply to those in whom adrenal deficiency has developed owing to environmental conditions unsuitable to the particular needs of such persons. Were such types normal, they would be classed in the 'intermediate level'—and to this classification they return if a cure is effected.

In cases of *congenital* adrenal deficiency, the subjects (even when born of good stock) are, in appearance and disposition, of the adrenal 'lower-level type', earlier described. As children they are highly strung, destructively active, with little brain cellular development, and consequently only a negligible learning capacity. As adults they are mental and physical weaklings, with a very small reserve of energy for emergencies, and an inferior power for self-direction.

Hyper-Adrenal Biases

Hyper-activity of the adrenal gland brings about an underlining of all those 'masculine' characteristics which are natural to the normal type and greatly subdued in the hypo-adrenal type. Such hyper-activity, with its resulting effects upon physique and personality, may be caused by a tumour of the gland, by hypertrophy of the tissues, or through a continuous over-stimulation, caused by a 'vicious circle' set up between the gland and the sympathetic nervous system. In a general manner such effects (with their different causations) show a close similarity.

Again we have the instance of disease as an influencing agent upon character or certain forms of behaviour. And by considering the extreme cases of organic disturbances, such as is evident in abnormal adrenal hyper-activity, we can see the dramatic outlines of behaviour traits which will be shown, in a less emphatic degree, in hyper-active adrenal subjects whose stimulus is not occasioned by actual disease.

In Children

Tumours of the gland, which bring about an excess of secretion in the bloodstream, may occur at various times in life, the

results depending on the time of occurrence. If, for instance, there is a tumour in the foetus before birth, and if the infant is basically a girl (with uterus and ovaries), a pseudo-masculinity may be imposed on the female, and even the external genitals may take on masculine characteristics. Thus happens that strange being, a girl child who has no 'girlish' interests, a young woman whose manner and appearance betray no feminine traits, and whose inclinations are entirely masculine. If such a tumour occurs in a grown woman, masculinity replaces femininity. The contours lose their softness; the body grows lean and muscular. A roughness of skin accompanies some growth of facial hair, and the voice deepens in pitch. All female sexual desires disappear.

The adrenal cortex thus clearly shows itself to be the gland of masculinity. (This hyper-activity with its consequent alterations of physique and character seldom, if ever, occurs among thyroid subjects who are described in the next chapter. If the thyroid gland is dominant, the adrenals cannot become hyper-active, or conversely, hyper-thyroid activity occur in basically adrenal types.) If in a young male child an adrenal tumour appears, the process of development is immensely accelerated, and cases have been known of boys who at the ages of six or seven become fully mature. Such types are usually short and heavily set, with full facial and bodily hair growth, muscular strength and adult mental and sexual capacities. A young girl child afflicted with such a tumour likewise shows a startling rapidity of development, so that at the age of four or five she may appear to be, in every way, ten years older. In a male adult this type of tumour brings about a marked accentuation of masculinity and virility, with unusual and sustained powers of endurance.

If by means of successful operations such a tumour is removed, there is a gradual return to normality. The masculoid woman regains her femininity and the extremely virile man takes on more subdued characteristics. External or psychological treatment can have no effect if the fundamental disturbance is not first remedied.

The Superman?

Most of the conditions of adrenal hyper-activity are evident in cases where the adrenal cortex is large or thick, and in fact it may be almost certainly assumed that cortical size and thickness are the determinants of pugnacity, virility and masculinity, which traits vary accordingly so that the thinner or smaller the cortex, the more diminished or modified these same traits. Such a physiological condition does not therefore involve any basic ailment or

unnatural disturbance. It is simply a physical fact which cannot be altered.

The normally hyper-adrenal type shows then, all the basic adrenal features in an accentuated and positively recognizable form. The eyes (in the intermediate and higher level types) are particularly mobile and expressive while the mouth displays an especially marked compression and elasticity of muscle.

An aggressive determination characterizes such a subject; his self-reliance and indefatigability enable him to make progress despite obstacles which would defeat many who are less empowered. The 'self-made man' is often of this type; by dint of a sustained and energetic refusal to accept the probable poverty and unproductive drudgery of his early surroundings, he has attained success and been satisfied with nothing less than the biggest, the best, the most imposing and the most expensive in all the possessions he acquires. Although possibly hampered by the poor quality of his scholastic education, he is swift to grasp every opportunity for advancement. He may lack tact and many social graces, but his forcefulness of speech and manner are substitutes which assist him to achieve his own ends. In the course of his 'self-making' he may suffer many rebuffs and minor failures, but his resilience and hardihood enable him to recover swiftly from such misfortunes, and to start again, if need be, from the very beginning. His spirit of adventure, his positive delight in conflict or in outmatching any opponent, his abundant self-interest, his excess of physical strength, his enthusiastically materialistic nature, his capacity for taking pains and making profits—very often combine to bring him to the summit of worldly wealth. He is, in such a case, the 'local boy' who 'makes good', the magnate who once sold newspapers on the streets, the errand boy who eventually becomes managing director of his firm, the politician who speaks on behalf of factory workers or miners because he has had first-hand experience of their working conditions.

The success of such a subject depends upon his forthright approach, his dogmatic attitude, his almost physical overwhelming of any obstruction. What he lacks in subtlety he makes up for in persistence. He is the natural fighter, the leader, the doer of deeds. He enjoys power and has no patience with weakness. He is always the centre of concentrated activity, and seeks constantly a larger scale of enterprise. It would appear that the possessor of a hyperactive adrenal cortex has at least one of the ingredients essential for material achievement—stamina.

On the higher adrenal type levels, such adrenal hyper-activity makes for a keen and constructive intelligence, a tremendous 'drive' in the acquiring of knowledge and in the harnessing of such acquired learning to the greatest possible effect. Such men excel in almost every project they undertake; they are swiftly acclaimed as leaders, as national heroes, as figures of dramatic interest. They are the clever, fearless warriors, the experts in strategy, the tireless men to whom the most danger-fraught opposition is a spur and a delight.

(NOTE.—Many characteristics pertaining to the above types are similar to those of the 'pituitary-adrenal' type described in Chapter V.)

CHAPTER IV

SENSORY TYPES

(*Sensory Types:* those persons, male or female, whose physical appearance and temperament are occasioned mainly by the thyroid gland's basic influence, the general disposition being sensory, imaginative, sociable, unaggressive and 'feminine'.)

The soul is nothing apart from the senses.

PROTAGORAS.

General

AMONG all the thyroid-centred (or thyroid dominant) people, there is a general, identifying strain of physique and personality, a kinship sometimes marked, sometimes scarcely discernible. A cultured, highly bred, sensitive woman might glimpse an incomplete reflection of herself in another girl whose manner and intelligence lack poise and refinement—some thyroid behaviourism common to both levels. This is understandable, for the main motivation of all thyroid types is, broadly speaking, the same.

In the early formative years of a thyroid type's life the thyroid gland exerts a strong dominance over the adrenals. In addition to this it greatly influences the pituitary gland's supervision of bone and muscle building. We have seen that in the case of adrenal dominance, the head and features gradually develop in angularity, a departure from the rounded, 'soft' lines of infancy. But thyroid-centred types retain the ovalness and softness of their childhood features, and in many cases this characteristic remains scarcely altered throughout adolescence and maturity.

The forehead of a normal baby is either vertical from the brows to the crown, or protruding at the crown. The eyes are large and rounded, the nose scarcely more than a plastic 'snub'. In the thyroid adult type, the forehead remains vertical or slightly rounded; the eyes are large, the nose concave, *retroussé* or straight, the lips full. The facial contours are lacking any aspect of sharpness or harshness either in physical composition or expression. This countenance, whether of man or woman, is 'feminine' just as the adrenal facial configuration and behaviour are 'masculine'.

Most goiterous, cretinoid or myxodemic cases are women, since the majority of women are thyroid types. If this gland is stable it dominates the others—if hypo or hyper-functioning it counteracts the balance of other glandular activities. In the first instance it makes for a sluggish personality, and in the second, one that is too highly strung and sensitive to meet the demands of normal living.

A Lower-Level Type: Physique[1]

On this scale, the physique (as in the lower-level adrenal type) is normal in that the body performs its functions adequately, but there is small measure of grace or harmony of appearance or movement. There is a tendency towards breadth and fatness, especially of the hips, thighs, legs and chest. The bones—not necessarily small—are short, so that the hands, for instance, are pudgy and thick-wristed. The shoulders, scarcely narrower than the hips, are well-cushioned. In general the bodily fleshiness is poorly distributed, and often the effect is one of unfortunate proportioning. The legs may be of normal size, but the thighs much larger in comparison, and in some cases this lack of balance is almost grotesque.

From ear to ear, the head is wide, seemingly flat at the top, lacking fullness of crown and clarity of nape-line. The face itself is round[2] although the forehead (short and vertical from the eyebrows to the normal hairline) is flat, and measures less than one-third of the total facial length. The eyes are small, lacking the lustre, vivacity and well-developed muscular control noticeable in the higher-type levels. The white of the eyeball does not show below or above the iris; this gives the eye a sunken rather than narrow appearance. The nose is concave and short, the ridge narrower between the eyes than at the tip, the nostrils thick. The fleshy full lips of the large mouth are poorly modelled, and without delicacy of muscular development. As a rule the mouth-closure line is irregular, and the lips lack evenness of proportion. The space between nose and upper lip is noticeably short. In this type a rounded (rather than bony or muscular) chin is usual, and fat tends to form below the chin to the neck, many times forming a 'double chin'. The cheeks are plump, usually hiding the lines of cheek-bones, and the complexion is bright and clear, yet coarsely textured, easily bruised and swift to flush or redden in strong sunlight. Since the skin-protective adrenal function is slight, there is no automatic skin defence against heat or cold.

[1]Chart 17. [2]See Figs. 18 and 19.

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[1]Chart 17. [2]See Figs. 18 and 19.

Chart 17

LOWER-LEVEL SENSORY TYPE

PHYSICAL APPEARANCE	MENTALITY and EMOTIONS
Main characteristics: Tendency towards breadth and obesity, with poor proportioning of flesh. Facial roundness. Plumpness of cheeks, chin and hands. Thickness of thighs, wrists and ankles. Lack of clear napeline. Coarseness of complexion with easily flushing skin.	Emotional dominance which is manifest often by loudness of voice, lack of physical control, sudden short-lived rages and as sudden boisterous gaieties.
The *forehead* is short and almost vertical from the brows to the normal hairline. Its length is much less than one-third of the entire facial length.	Predominantly good natured and gregarious.
The *eyes* are small yet prominent. They are poorly muscled and without lustre or vivacity.	Resentments and jealousies infrequent and quickly forgotten. Sullenness at times.
The *eyeball white* shows clearly below the iris which is barely touched by the upper eyelid.	Triviality of conversation which is limited to small talk of immediate surroundings and associates.
The *nose* is short and retrousse, its ridge narrower between the eyes than at the nasal tip. The nostrils are thick.	Strongly emotional sexually.
The *mouth closure line* is irregularly defined.	Inferior mental qualities and marked slowness of mental response.
The *lips* are thick and full, poorly muscled and modelled.	Tendency to think 'in circles'.

PHYSICAL ABILITY

Actions usually based on instincts or 'hunches' rather than on reasoned thinking.	Physical strength and abundant energy but no capacity for self-direction or sustained effort.
Lack of desire or ability for concentration or the pursuit of mental or physical processes to logical conclusions.	Constant clumsiness and aimlessness of movement.

Little, if any manual dexterity.

Necessity for confining efforts to work requiring muscular force but no skill.

Fig. 18

A LOWER-LEVEL SENSORY TYPE

(Male: Full face and profile)

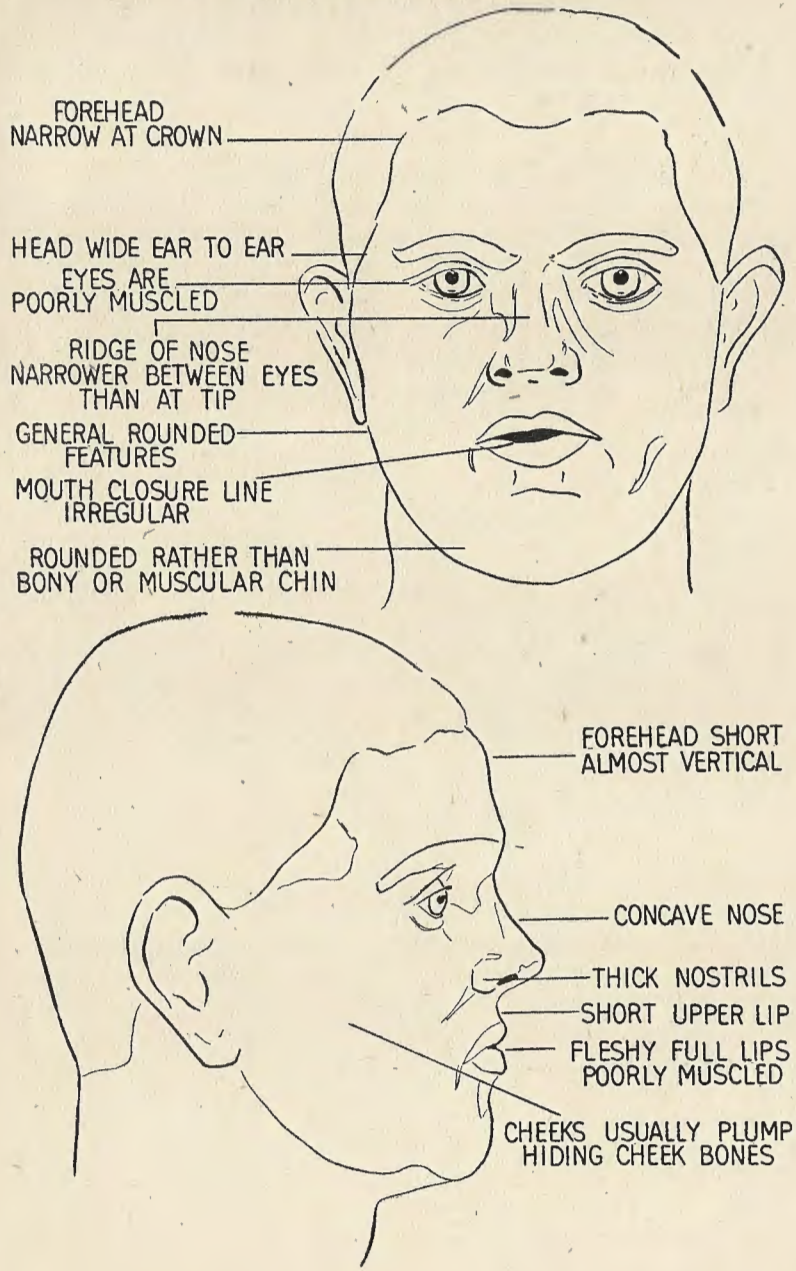
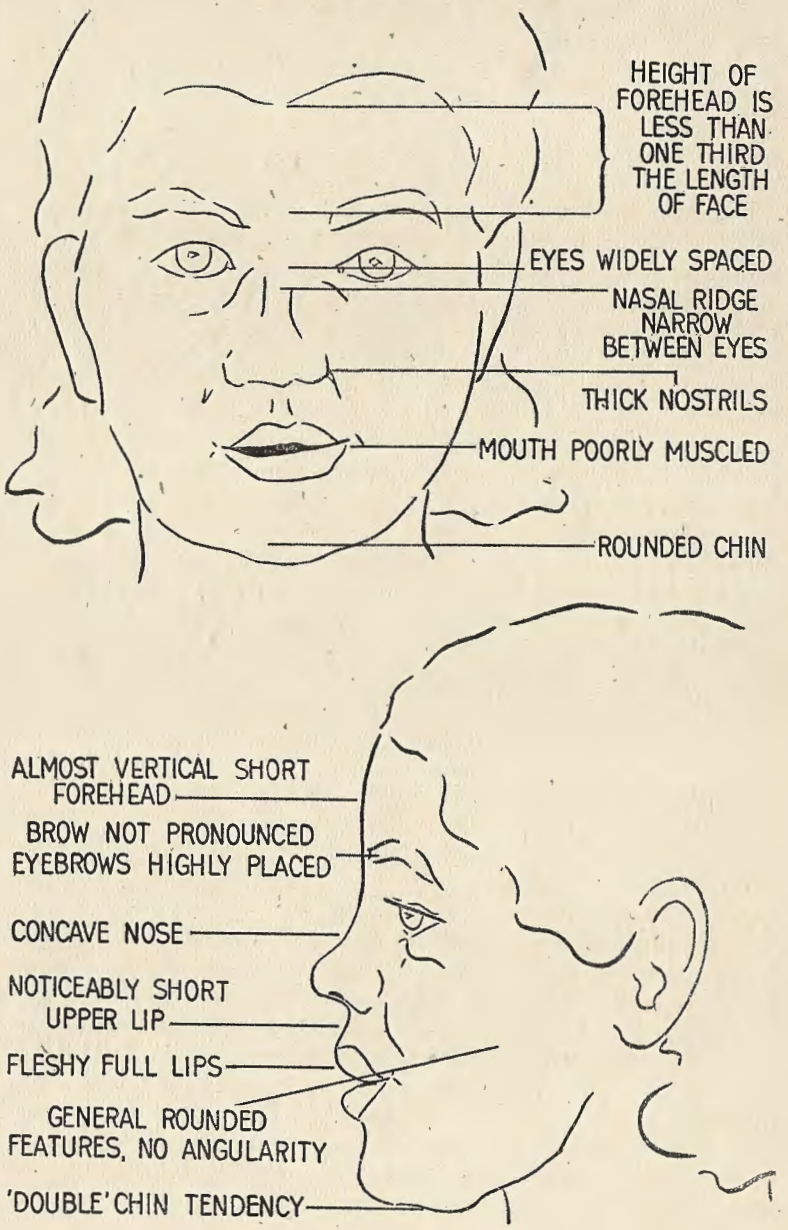


Fig. 19

A LOWER-LEVEL SENSORY TYPE

(Female: Full face and profile)



Same Lower-Level Type: Personality

Like the adrenal-motor type on this same level, the thyroid-sensory individual lacks co-ordination and balance of mentality, poise of manner, or any of those qualities natural to persons whose inherent traits are of a more complex and less instinctive kind. While the adrenal-motor type possess a more fully developed lower-frontal cellular part of the brain, the thyroid-sensory has more pronounced sensory (rather than motor) cells which, in the top-frontal brain portion, receive the various sense vibrations from the sense organs. Consequently this type experiences vivid sensations of feeling, seeing, smelling, hearing and tasting, although the poor development of brain cells prevent any subtlety of discernment and sense appreciation.

A woman of this type reveals herself clearly through the medium of her apparel. Since it is unlikely that she will have the money wherewith to buy many clothes, her wardrobe is necessarily very meagre, but somehow she contrives to enliven it with touches of raw, discordant colour. Whenever she is able to buy a garment she is attracted always by its colour, quite regardless of any considerations of aesthetic harmony in pattern, shade blending or suitability of line. Although its price must be carefully considered, she is heedless of its possible durability or adaptability. She admires and covets gaudy oddments of clothing, flashy jewellery, sleazy ribbons, fur pieces, shoddily 'glamorous' footwear, imitation satins and velvets; all that glitters or is pleasant to the touch, tempts her. Like a child 'dressing up', she is not in the least concerned about the appropriateness of her garb; so long as it lives up to her idea of 'pretty' she is quite content.

Because of the inadequate pituitary balance which is shown by the inferior bone and muscular development of the physique, the reasoning cells of the brain are either in a retarded state of growth, or dormant. Reason and logic are, therefore, scarcely to be expected of her, and it is practically impossible to teach this type to solve any but exceedingly elementary problems. Any knowledge thus painfully acquired is invariably forgotten after a short period of time. In reading, the simplest of words, the least complicated of phrases are necessary if they are to be understood by this type. Pictures are preferred, especially if they are of familiar subjects, and highly coloured, sentimental or comical in an obvious way. Films appeal which call for no effort of attention but offer lush settings, tuneful backgrounds, emotional plots (no matter how improbable or blatant) and scope for easy laughter or tears. This type of woman is essentially emotional. Although she

is incapable of sustained or complicated emotion, she reacts spontaneously and without control to many kinds of excitement, including sexual. Her chief pleasures are physical—food, comfort, sociable atmosphere. Her conversation is far from profound, but it is plentiful, repetitive and lively. Every aspect of her immediate surroundings provides her with ample material for conversation, and in any wider field she neither ventures nor has any wish to venture. Small talk: "So I said to her . . ." and "Well then, *she* said . . ." engrosses her. For argument of any hostile character she has two defences, the first being her basic good nature which is a cushiony foil to the most determined adversary's barbs—and the second, tears. Though not easily angered, she can, through boredom or slight, become sullen and obstinate. Yet, being easily soothed, she quickly recovers from such lapses.

As a mother or homemaker she is unsystematic, given to spasmodic tidyings which might be followed by periods of complete disregard for order. In money matters she is an erratic spender of her very limited means. Should she find herself with extra money she rarely regards it prudently but rather as a means of immediately gratifying some physical want. Strongly maternal, she is disinclined to exert discipline over her children, and her household may be termed happy in its easy-going character, but noisy, slapdash, and filled with minor incidents and accidents of a preventable nature.

A woman of this type has few ambitions, and in any case lacks the determination to fulfil any plan if the way is barred by minor obstacles. Procrastination is a characteristic which she cannot overcome, and with this is allied unpunctuality and a general haziness concerning most practical matters. Decisions are made more by instinct or 'hunch' than as a result of logical thinking. As a rule the path taken is that of least resistence, for although energy is not lacking, single-mindedness is, and any moment of Spartan determination is swiftly dissipated by the temptation of some creature comfort. For this reason this thyroid type, as a paid worker, is often classified as 'chronically lazy', especially if her job requires some manual skill or practical judgment. Her employer finds her temperamentally equable and willing, but, as an employee, unreliable, time-wasting, gregarious and fitted only for entirely unskilled work. Criticism brings about sulks and tears, usually followed by a short-lived spasm of improved effort. Then with reversion to monotony returns the fundamental nature of this type, characterized by the slow, slouching walk, the aimless *laissez-faire* manner and the inability to remember instructions.

Prettiness of a sort is not uncommon in this type. Its basis is a healthy body, a brightness of complexion, a feminine softness of contour. Real beauty, however, is a rare attribute on this level, for beauty implies symmetry, clarity of line, delicacy and balance of structure and gracefulness of movement. Real beauty lasts beyond the first freshness of youth, whereas the physical attractiveness of this type, having no stable foundation, usually deteriorates long before middle age. Such a woman grows exceptionally obese; her features coarsen quickly. She grows increasingly indolent and less inclined to take any pains with her appearance. The pleasant plumpness of youth becomes in many cases the flaccid grossness of later years. The picture is one of good nature, unaggressive but deep-rooted self-interest, general mental sloth and placid fleshiness. However these natural characteristics only assert themselves strongly if, in earlier years, environment and training have failed to provide spurs to self-discipline of mind and body. And it should be noted that the constant presence of any 'adrenal' family member with enthusiasm and practical determination may have a stimulating effect on this type of woman who, since she has few powers of efficient self-direction, profits by, though seldom enjoys, the prodding forcefulness of someone who is the opposite of herself.

An Intermediate-Level Type: Physique[1]

As with the intermediate adrenal-motor types, thyroid-sensory (middle level) individuals bear a clearly recognizable resemblance to their prototypes. In their case the fact of development is indicated by an improvement in physical proportioning, a finer balance of features and a considerably evolved general state of body and mind. In identifying this type, shape and contour rather than size or weight should be considered. Among thyroid types, especially on this middle level, weight variations occur more frequently than in any other class, by reason of the thyroid gland's regulation of fat distribution and its fluctuation due to changes of influence. Environmental and emotional factors as well as diet cause accelerations or sluggishness in the thyroid glandular activity, with a corresponding gain or loss of weight. Should the thyroid be hyper-active the physique will be slender or noticeably thin. In hypo-active cases, the tendency is towards heaviness or obesity, not only of the face but of the entire body. A normally functioning thyroid promotes an average, healthy weight.

Regardless of the weight factor there are certain identifying

[1]See Chart 20.

Chart 20

INTERMEDIATE-LEVEL SENSORY TYPE

PHYSICAL APPEARANCE	MENTALITY and EMOTIONS
The *hair* texture is fine and silky.	General emotional dominance, with vivid imaginativeness.
The *face* is oval in shape.	Active sympathetic responses and tendency towards sentimentality.
The *forehead*, viewed in profile, is vertical or almost so, and measures approximately one-third of the total facial length. Viewed from any point it is without angularity, its lines being rounded rather than straight. The temples may be flat or slightly sunken. The brows are not pronounced; they follow the forehead's natural curve.	Strong sex inclinations.
The *eyebrows* are well arched on the brow.	Self-consciousness in strange surroundings. Among friends, sociable and brightly conversational, though topics have little depth and are rarely pursued to emphatic conclusions.
The *eyes* are large, often short-sighted, and neither protruding nor deep-set. The eyeball white shows between the iris and the lower eyelid. The iris is scarcely covered by the upper eyelid.	Lack of real self-control.
The *eye movements* are quick and alert, but not especially expressive or vivacious.	Marked tendency towards impulsive behaviour and erratic enthusiasms.
The *nose* is *retroussé* or straight, with a narrow ridge along its entire length.	Enjoyment of outdoor life and fondness for animals.
The *nostrils* have not the crudity characteristics of those of the lower-level type.	Considerable discrimination in dress. Appreciation of colour and texture. Enjoyment of light, strongly rhythmic music, and dramatic (though unsubtle) films.
	Romantic, daydreaming and hero-worshipping propensities.

ABILITY	
Clarity of sense perception but lack of awareness in perceiving motives and strategems.	Poor memory for details.
Considerable, but poorly directed energy expenditure. Inadequate powers of resistance or endurance. Absence of sustained tenacity, persistence or determination.	Swiftness in forming minor decisions, but hesitancy with regard to major issues.
Difficulty in concentrating, systematizing or analysing factually.	Knowledge acquired more by rote than by any basic comprehension of the substance.
	Spasmodically ambitious, but often as content with dreams as with their fulfilment.

Fig. 21

AN INTERMEDIATE-LEVEL SENSORY TYPE

(Male: Full face and profile)

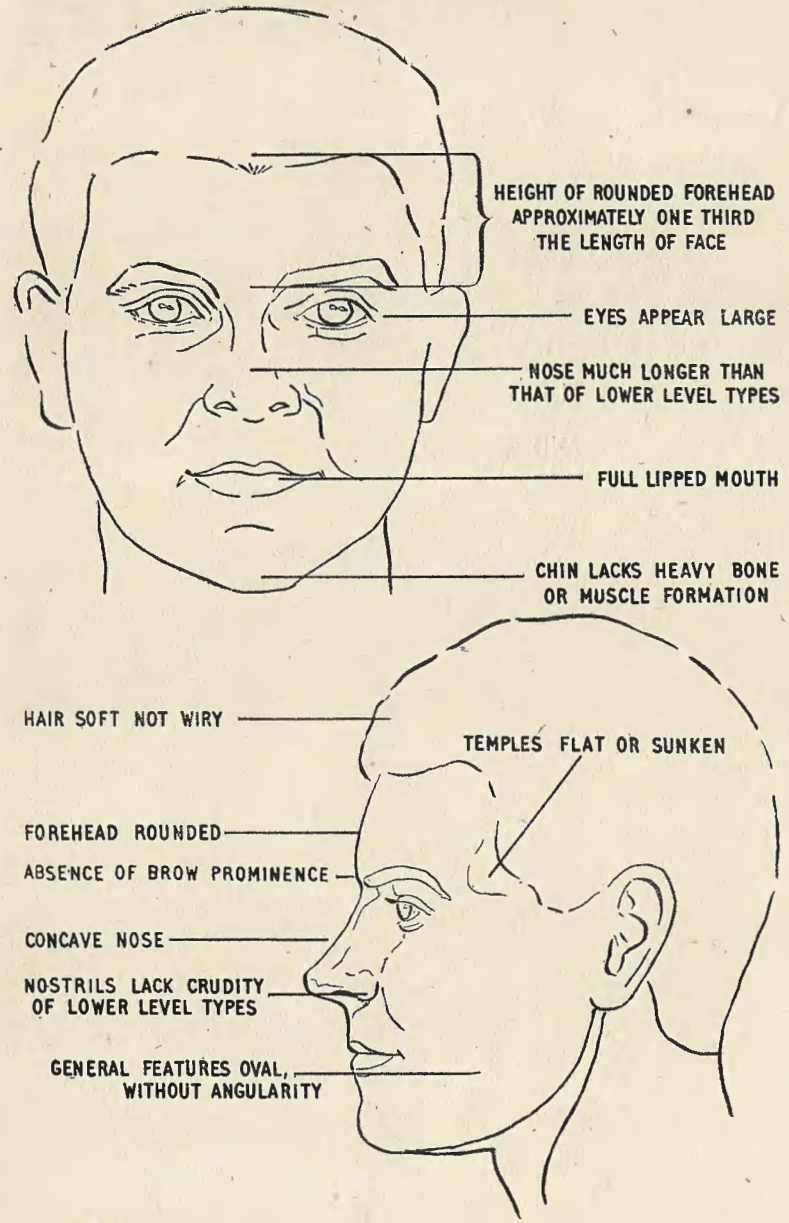
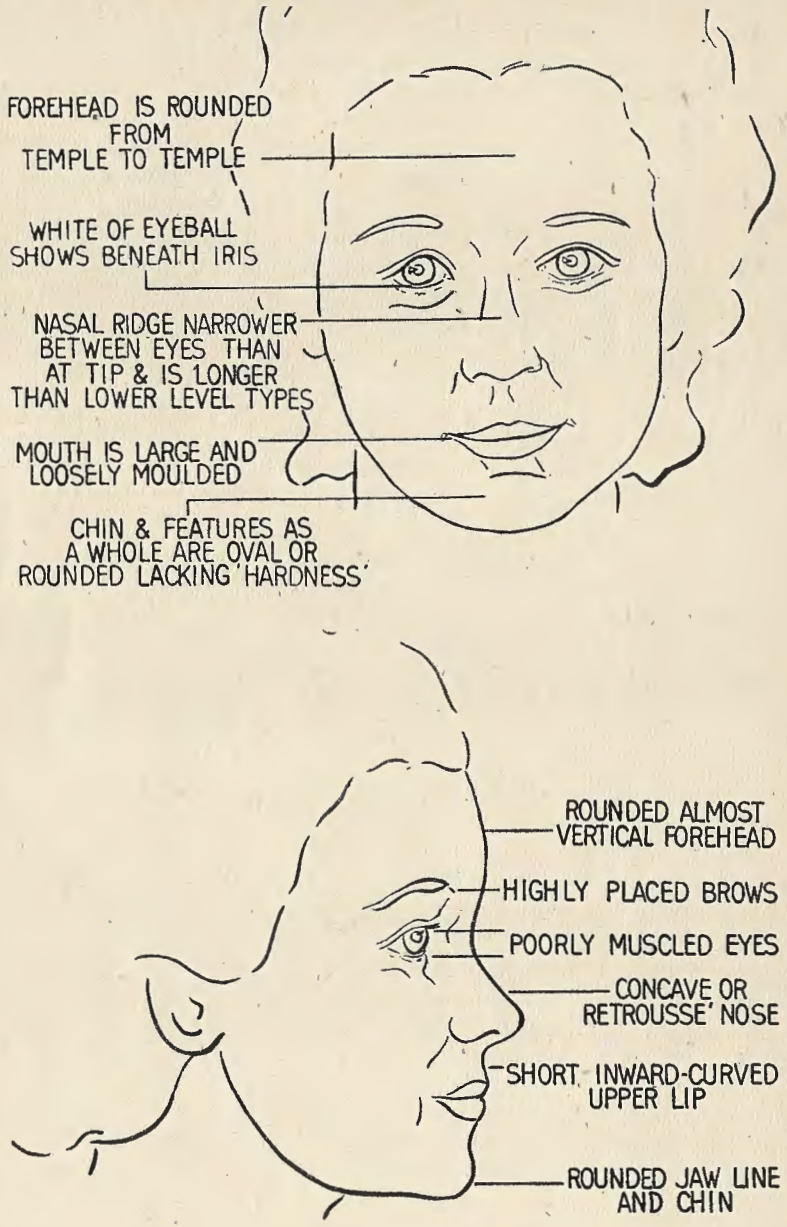


Fig. 22

AN INTERMEDIATE-LEVEL SENSORY TYPE

(Female: Full face and profile)



characteristics by which any person of this type level may be recognized. The face,[1] whether fat or thin, is oval—without any angularity or harshness of outline. The forehead is of medium height—that is to say, measuring approximately one-third of the total length of the face. Viewed in profile, it rises vertically from the brows to the normal hairline, or it may be slightly rounded vertically. From any angle it lacks squareness or sharpness, and follows a curved line from temple to temple. The temples are either flat or slightly hollowed. The eyebrows are set high on the brows, the upper eyelid forming a clearly defined arch, and the eyeball position such that the white of the eyeball shows beneath the iris which is barely covered by the upper eyelid. The eyes may *appear* large, but this is a common illusion caused by the lack of muscular development about the eyeball and the absence of brow prominency.

The nose is *retroussé* or straight, a narrow ridge following its full length or decreasing between the eyes. This feature differs from that of the lower-level thyroid type in that the ridge has greater length and the nose a less infantile shape. The nostrils, although without thickness or crudity, have not the sensitive fineness or transparency of types on higher levels. The space between the bottom nose juncture and the upper lip is short and usually curved inward. The mouth is large, with full upper and lower lips. This feature, however, has little muscular development and control; consequently, when in normal repose it reveals a lack of compression, a relaxed softness which gives the face a helpless quality of indecision and immaturity.

The chin is rounded, made up of fat rather than heavy bone or firm muscle. It neither recedes from nor protrudes beyond an imaginary line vertical from brows to lips. The head is well shaped and the nape-line clearcut. Soft though not necessarily abundant hair is usual, the texture being much finer than that of thyroid lower-level types, and quite unlike the kinky coarseness of hair common to adrenal types.

As a whole the physique is essentially feminine, the shoulders rounded rather than squarely shaped, the bust of the female well developed, all the outlines curved. The bone construction is light, flesh and fat prevailing over bone weight. Men of this type have a perceptibly feminine cast of body and personality; although usually normal in every respect they have neither the masculine 'adrenal' qualities of natural aggressiveness and resourcefulness, nor the mental directness and practical energy. Just as the adrenal

[1]See Figs. 21 and 22.

type of woman has little capacity for her more feminine sisters' 'womanly' occupations and interests, so has the thyroid type of man few capabilities for competing in the more turbulent spheres of adrenal masculine endeavour.

Same Intermediate-Level Type: Personality.

A woman of this type is, like her less evolved feminine counterpart, a sociable, emotional being, but on this level her tastes are more cultivated, her responses somewhat better disciplined, her life more systematized. Even so, she lacks self-control and is swayed by her feelings to an extent which may frequently prevent the furthering of her ambitions or the fulfilment of many tedious daily tasks. Although energetic and enthusiastic, her staying powers are slight, and often an enterprise which she begins with high spirits and bounding determination flags and falters when the difficulties mount. Optimism turns swiftly to defeatism and the project is indefinitely shelved. This type of woman is too impetuous for patient planning. Forethought of a practical nature is not characteristic of her—instead, she dreams and wishes, her notions vague and often incapable of concrete realization. Disappointments are frequent for her, since so often the result of her visualization falls so far short of her expectations.

In some measure an idealist, she has not the practical ability to bring her dreams to life; her wisest course lies in limiting her castles in the air to more humble structures which might, with perseverance, become actual. Yet as a rule she dislikes groundwork, the shaping of foundations, and the slow, necessary, detailed hard work of the beginner. While, of necessity, she may earn her living by doing routine work, she has little capacity for prolonged concentration; her mind wanders; she yawns and is bored; her work suffers. If she is emotionally disturbed, unhappy or depressed for personal reasons, she cannot isolate or curb her feelings so that they do not drastically interfere with her daily tasks. Her face always reflects her exact emotions, for she has little power of dissimulation. If she senses antagonism or criticism she does not attempt to tackle her opponent or critic, but averts her head and broods over an exaggerated reconstruction of the incident, feeling herself wronged and martyred, the misunderstood heroine. Praise revives and enlivens her; she reacts to it warmly and with excellent though usually short-lived results.

All her sensations are acute; what some may consider trivialities delight her or reduce her to despair. She laughs as easily as she cries and is as spontaneous in sympathy as in resentment.

The personal element is important to her; she has little understanding for abstractions or any matters which she cannot reduce to terms of personal feeling. Her own criticisms of others are invariably personal; she dislikes her employer's tone of voice, or her workmate's dress. Intuitive rather than analytical, she is sensitive to atmosphere but unlikely to perceive the motives of others. If she does not feel at home in her surroundings, she is self-conscious or affected, blushing easily, her speech muted or nervously shrill. When with people she likes, she talks with easy liveliness, her conversation ranging over many topics but rarely arriving at definite conclusions or achieving any depths of consideration. Again, her interest is mainly in personalities—what X said to Z; and why—the new girl at the office and what she looks like—A's engagement ring, B's new hat, C's baby, D's husband—films, food and shopping. All are dramatized, each item given more than its natural colour and made for the moment something to be exclaimed over or made the subject of mimicry. Without wishing to betray confidences, a women of this nature finds it almost impossible to maintain silence over any matter of exciting or faintly scandalous quality, for a titbit of this kind means a dramatic triumph for her. She enjoys witnessing her listener's excited astonishment and can relive her own first sensation on receiving the news. Later she may suffer some qualm of conscience, for she is a kindhearted person and would not willingly hurt another's feelings—but the temptation of the moment is invariably too much for her.

Children of this type are untiringly active, imaginative in their games, often destructive but rarely quarrelsome or vindictive. Their interests are less for mechanical toys and pastimes necessitating a practical cast of mind, than for picture books, 'dressing up', sociable playing at 'house'. They demonstrate a maternal fondness for dolls, and an enthusiasm for gay colours, pretty fabrics and 'cut-outs'. At school they find difficulty in mastering arithmetic and all subjects which demand precision of mind—whereas in elementary composition they may show some aptitude for dramatic inventiveness. In the class room they are swiftly discouraged by any public reprimand or criticism, and if their teacher's manner is brusque or in any way frightening, their progress is inevitably slowed, and they become evasive and silent, though seldom actively insubordinate. A rebuke, to them, is never an incentive to active rebellion. Such children wilt beneath reproach, but respond generously to praise. They cannot be pushed but may be tactfully led, and any older person who earns

their friendship is regarded with complete trust and flattering admiration.

Although not slow to grasp general information, they learn usually by rote—the form rather than the substance. Rather than achieve their own independent solutions, they like to ask questions, the answers to which call for no further reflection or speculation. Left to themselves, their reasoning is inconclusive and their thoughts are easily scattered by minor happenings. A sense of time is, for them, difficult to acquire; they must be constantly reminded that they will be late for school, or that they will miss their bus. Unmethodical and impetuous, they mislay their possessions often, and this trait, like unpunctuality, persists in later life.

In many ways the adult woman of this type is merely an older version of the child she was. Her family may expect her to be practical and 'sensible' in womanhood but this expectation is very often denied. Although she may profess to seek independence, she secretly prefers to be cared for and looked after. By nature unfitted for any vigorous competitiveness, she enjoys a comparatively sheltered existence; hers is not a pioneering spirit. She hesitates to launch out alone into the unknown where she might be a nonentity, forced to rely on her own powers of defence and maintainence. Although she might longingly contemplate a change of scene or work, her spirit is too passive for real adventurousness. Her romanticism is leashed by her timidity and there is often a conflict in her—her yearning for novelty and excitement warring with apprehension towards possible insecurities and dangers. She may consider herself wasted as a typist, and believe that she has the potential attributes of a screen star, but it is unlikely that she will steel herself to risk even the preliminary hazards of single-minded ambition. Marriage generally claims her; as a rule she considers marriage as inevitable, as a state to be prepared for from about the age of eighteen. Her interest in men is lively and constant, and she makes the most of her physical charms, more often than not taking for her ideal the film queen of the moment, and spending as much time as she can afford in following the dictates of magazine 'beauty experts', and gazing into mirrors which reflect (usually kindly) her wide-eyed, round-cheeked, hopeful countenance.

However the vanity of this type of woman is rarely unpleasantly marked; its nature is childlike and gives little offence. Her delight in new clothes, a different way of dressing her hair, in herself when she thinks she looks most attractive, is infectious, and not at all censorable. She reacts readily to flattery, and is not

sufficiently worldly or cynical to recognize when it is too fulsome or out of place. Her naivete is an inherent trait, and although she may attempt a mask of worldly wisdom and self-sufficiency, her natural dependence on others cannot be disguised, and although she may not realize it, it is this last quality which makes her attractive as a woman. Although effervescent in spirit and fond of gay sociability, she is submissive, willing to be influenced, glad to be shepherded and sheltered. She dislikes making any major decisions, and vacillates helplessly or plunges rashly if she is not assisted in her judgment; usually she accepts a ready-made solution without argument. However, in the solving of minor personal problems, she is often quick-witted and resourceful.

In achieving any end, her methods are never aggressive. She seeks to attain her goals always by attempting to enlist the favour of others, rather than by pitting her determination against them. Often she disarms criticism by her frankly personal appeal for assistance; when she meets downright, stern opposition her reaction is instantaneous defeatism, for she has neither swiftness, stamina nor temper for sustained combat. Invariably she interprets any such opposition in a personal sense, believing the motive to be animosity, stubbornness or stupidity. Since her own weapons are mainly those of personal charm and appeal, she finds it difficult to believe that so many other people use a different kind of armoury and follow a different set of combat rules.

Although by no means of pugnacious temperament, she manifests at times a certain explosive irritability, more often of a nervous or hysterical than truly antagonistic character. Although sometimes malicious she is incapable of calculated enmity; her emotions are too shortlived for deliberately planned attacks or retaliations. She may mentally painstakingly rehearse her words and attitude, but by so doing tends to waste the energy-emotion needed for the actual scene. When the time comes for real words and actions the novelty has worn thin, and the urgency, once so strongly felt, has been dissipated.

Her natural appreciations are sensory, for the outdoors, animals, colour, music, dancing—and she reacts sensitively to pain or to any unpleasant sight or sound. Crudity in any form repels her. Sexually she is active in her emotional responses, and regards 'love' as a romantic pleasure, and never as a biological necessity.

Among women of this type may be found the hero-worshippers, the ardent film fans, the consumers of romantic novels, the sugar-hungry, the wide-eyed sentimentalists, the vulnerable dreamers.

As working women they make up a large percentage of shop assistants and office clerks; often their cheerful willingness of temperament compensates for their lapses from efficiency and practicability. Their pleasant manner and attractiveness of appearance accompanies a desire to please. Usually their fundamental femininity gains them a shield against hardship, for they arouse the protective instincts in men who are only too anxious to play the opposite role of the forceful, dominating, breadwinning male.

The thyroid-sensory type of man on this level is, however, not the best foil for the same class of woman. His disposition, like hers, is passive; he is manually impractical and unlikely to attain any high achievements in life. He may show better persistence in the concrete application of his imaginative ideas, but as a rule vacillates from one job to another, lacking the determination to make the most of any opportunity given him. His nature is kindly, sociable, easygoing. His constant optimism is an insufficient spur to ambition, since it is not accompanied by foresight or competitiveness of spirit. He is often called 'a good fellow' and 'a good mixer', but he lacks initiative, driving power, self-reliance and many other similar qualities which are for the most part attributes of the adrenal 'manly' male. Without being obviously effeminate, his appearance and his behaviour mark him as possessing the softer, more passive characteristics common to the 'gentler sex'. For this reason he is happiest and most capable in those spheres generally accepted as exclusively feminine.

Hyper-Sensory Types

Deviations from Normality

Thus far we have been primarily concerned with the average thyroid-sensory types, and not with those whose thyroid characteristics bear any discernible trace of abnormality. It is true that there may be many varying degrees of abnormality, some by no means necessitating clinical attention and others which obviously demand medical investigation.

In some cases of thyroid hyper-activity the physical indications are dramatic: a goiterous swelling of the neck ensues; the eyes protrude, showing an unnatural brightness. Other symptoms are excessive perspiration, a heightening of temperature and an increased hunger and thirst. The mentality, behaviour, and entire personality are likewise affected. Insomnia brings about fatigue and nervous strain; there is a marked tremor and an emotional

instability. The body loses weight, though without emaciation. Sudden changes of mood are characteristic, ranging from excitability to inert depression. Fears are magnified, difficulties imagined, small matters made the subjects of extraordinary delight or despair. This is a necessarily extreme picture, but it illustrates how a malfunctioning thyroid causes an alteration in disposition.

In lesser degrees this same hyper-thyroid condition may occur without the noticeable swelling of the neck or the pronounced protruding of the eyes. And in this state which lies between the completely normal and the clearly pathological are evinced many traits in which the doctor is not interested, for they cause no bodily discomfort nor point to any obvious physical derangement. It would be impossible to describe the minute differences of range in hyper-thyroidism, and so again we must confine the description to one supposedly average hyper-thyroid subject who both in appearance and disposition differs in especial ways from the normal thyroid type.

In such a person the thyroid gland's accelerated functioning means that the equalizing factors in converting the foodstuffs into bodily energy and fat are no longer operating efficiently; the gland is concentrating on energy production at the expense of fat distribution. Thus the bulk of body and face is reduced, often to excessive leanness, although quite naturally the bone development is not affected. Where the hyper-thyroid condition has its beginnings in youth, it usually continues (in heightened or diminished degree) throughout life, its effects on body and personality always manifest.

Various outside influences are conducive to the development of a hyper-thyroid state in an ordinarily normal thyroid type. These may be the impacts of grief or shock. Or the condition may occur through any undue stimulation of the nervous system, by sustained elation, anger, or excessive sexual excitement. Again, after a period of time, a reversal of the process may possibly occur by means of the same kinds of nervous stimulation, and a hyper-thyroid subject has been known to become, in this way, hypo-thyroid—the extreme opposite in character and appearance. This hypo-thyroid condition with be later outlined.

General Physical Appearance

The entire framework of the hyper-thyroid type is lean, lithe, and in some instances extremely thin. All parts of the body are affected. The forehead of the type in which hyper-thyroid activity is usually displayed is practically vertical from the brows to the

hairline. Others in whom this condition has been found have slightly rounded foreheads and prominent, lustrously magnetic eyes. In normal position the upper and lower eyelids leave a small space of the eyeball white between them and the iris, this characteristic varying according to the degree of hyper-activity. In basic formation the features, though thin, are mainly those of the intermediate level thyroid-sensory type. The skin is of extremely delicate texture and the hair soft and silky, with a wavy tendency.

General Behaviour and Disposition

The normal thyroid type, as has been mentioned, is predominantly emotional, imaginative and, generally speaking, impractical. It follows that the hyper-thyroid subject will show these and many other 'thyroid' traits in an exaggerated form. She will be excitable, nervous in movement, sensitive and extremely susceptible sexually. All her movements will be quick, impulsive and often unexpected. Her speech will be spontaneous, enthusiastic, chattering, like that of a highly strung child. She exhibits fits of optimism, gaiety and laughter which alternate with depressed moods of crying, irritability and pessimism. Her gait is unusually swift.

The intelligence of this subject, depending upon the degree of thyroid hyper-activity, appropriateness of education and suitability of environment, is alert and restless. Its quality will be shown in quickness of repartee and argument, in witticisms (which, if shallow, often have point), in observation and description of people and things. There will be some tendency towards exaggeration, an excess of highly coloured detail and sentimentality.

Such individuals are often misunderstood and their actions criticized as 'irresponsible' or 'flighty'. This arises from their difficulty in acquiring a down-to-earth approach to the daily needs of life. Their love of novelty prompts them to change their jobs frequently, to flit from one pastime or pleasure to another; they are nomadic in habit and their existence is often wilfully without roots or ties. Travel they enjoy for the sake of fresh sensations. However, because of their social level and consequent lack of sufficient means, they seldom become cosmopolitan travellers, but rather local wanderers, forever seeking greener pastures.

Since the sensory system of such subjects has a heightened tone with an acute perceptiveness in all the senses, they develop swiftly, even with a minimum of training, into second-class musicians, actors or dancers. Seldom do they achieve distinction,

since their artistry cannot be judged on its merits alone but is rather an accessory to the personal vivacity and magnetism of the type. It should be stressed that artistic achievement of any kind is not necessarily a foregone conclusion for hyper-thyroid subjects, but rather that artistic effort frequently offers a natural outlet for their particular combination of physical exuberance and uncontrolled sensory energy.

Hypo-Sensory Types

General Deficiencies

In hyper-thyroidism the most noticeable indications are those of accelerated nervous energies and increased sensitivity; in hypo-thyroidism the opposite manifestations occur. At the extreme limit of this condition we find the cretin—one born with a non-functioning thyroid gland—and the myxodemous subject in whom the gland has become chronically deficient in functioning. Such cases are clinical, often amenable to treatment. Many other instances of hypo-thyroidism in a lesser degree occur frequently, but such people do not obviously require pathological care, and their difficulties often remain unsolved. Their abnormalities are comparatively slight and may seem to be psychological rather than purely physical. The lesser degrees of hypo-thyroidism are not marked by any pain which could be described; no morbid growth can be discovered, no disease or marked mental deficiency revealed. Yet the gland may be far from normally active and consequently the body and mind must suffer a form of ill-health, or a departure from the desired normal, the extent of which even the individual may not realize if the change has been gradual, or the condition has been present since childhood.

The hypo-thyroid subject must necessarily lose much of the joy of living, for by reason of the sluggish thyroid the sensory nervous system lacks tone, resilience and normality of receptivity. Consequently most sense impressions are obstructed or distorted before they reach the brain termini. The faulty gland, neglecting the important matter of sensory control and distribution, concentrates instead on the needless accumulating of bodily fat which, again, is poorly distributed.

General Physical Appearance

Usually this type is exceptionally obese and of shorter stature than the average. Heavy thighs and hips are characteristic; the

hands and feet are small, pudgy and childlike. While the general facial features are similar in cast to those of the normal thyroid type on the same level, the face is more round than oval. The eyes are more deeply set than the average thyroid features, and smaller, without lustre. Truly indicative of the mental condition, their dullness and slowness of movement reveal poor qualities of perception and general inferiority of intelligence. The hair tends towards coarseness and wiriness; both on the head and eyebrows its distribution, density and quality are poor.

General Behaviour and Disposition

The hypo-thyroid type, depending upon the extent to which her thyroid fails her, may be identified by her sleepy mentality, the signs of which are slowness of perception and sluggishness of speech. Such a person is often termed 'dull' or 'lazy', the latter criticism implying that the will rather than the ability is lacking. Environmental stimuli can have little effect here, for the trouble is physical and impossible to cure by means of outside influences. Sloth, in this case, must be expected from a body so incapable of decisive energy. The unfortunate sufferer from such a condition lacks spontaneity of any kind, has difficulty in comprehending the wishes of others or of making her own wants known. Her manner is hesitant, though not nervously shy. She may seem equally indifferent to slights or kindnesses, quite without ambition, and be disturbed only by physical hurts or by a bullying insistence that she learn something of which she is incapable of understanding. Since her mentality is in a state of semi-dormancy, she is unlikely to complain of any of her troubles or to discern that her condition is in any way remarkable; neither can she achieve any heights of sensory enjoyment. All delicacies of sense experience escape her just as, it must be admitted, do all the more subtle humiliations and hurts felt by normal people. Her life is lived on a sleepy, monotonous plane, without highlights or deep shadows. She performs the tasks within her range of comprehension slowly and placidly, with a kind of bovine phlegm.

Since there will be little stimulus towards any pride of appearance, there can be no interest in feminine methods of 'grooming' or self-beautification. Perhaps, in a childlike way, the subject will show some gratification over a garment of highly unsuitable hue; boldness of colour may please her momentarily. She may like certain tunes if they are loud and repetitively rhythmical, with a jigging cadence. But it is emphasized that the impact on the senses must be for her what normal thyroid types would find

almost a shock; only by means of garishness and stridency is the sensory message even partially conveyed to her. Her 'vulgarity' of taste is not, for her, a departure from knowledge of what is cultured or refined; it is simply a result of her inadequate sensory system.

The above picture illustrates only one grade of hypo-thyroidism. However, all the characteristics outlined must apply in a greater or lesser degree in all grades, depending upon the exact extent to which the gland is faulty in any hypo-thyroid type. The reader may notice a similarity, both of physique and personality, between this and the lower-level thyroid type. Actually the *state* of each is very similar. But since the lower level type is such through heredity, her condition is natural—whereas the sub-thyroid type has not always the hereditary factor to explain her condition. Hypo-thyroidism may occur in an intermediate level type, whose appearance and disposition consequently deteriorate.

This condition is more rare in men. As previously mentioned, only a minority of men are thyroid dominated, and, therefore, the majority are unlikely to suffer from thyroid derangements. Male hypo-thyroids exhibit in personality and appearance most of the qualities just described, but because they are often expected to show some masculine aggressiveness or practicability, their state is perhaps the more painful. They are the adipose, dull men, the 'fat boys' who are unteachable and forever hungry, the unventuresome, the yawning—the harmless, vegetative and often misunderstood men whom nature has not favoured.

CHAPTER V

HIGH-LEVEL MOTOR TYPES

(*High-Level Motor Types:* those persons, male or female, whose basic 'adrenal' composition is augmented and balanced by strong pituitary influence, and whose basic mentality and disposition is actively practical, constructive, well-disciplined, forceful, magnetic, keenly perceptive and analytical.)

Absent he is a character understood, but present he is a force respected.

GEORGE SANTAYANA.

Motor Intelligence[1]

In its developed form intelligence may be of more than one kind. The interests of some intelligent men lie in the unravelling of abstract problems, or in the expression of ideas in music, painting, sculpture or literature. Their creativeness is frequently accompanied by a kind of mental chaos; they can have no absolute limit of perfection to attain; their work is that of interpretation, thought-weaving, fantasy-spinning. Rather than use accepted facts as bricks with which to build, they conjure up the intangible and construct that which lives although it is not alive. Such intelligence is unlike that of men who demonstrate a mental swiftness in sizing up a situation, in seeking the roots of a chemical problem or investigating a mathematical puzzle. This other intelligence admits little sensory imaginativeness; concrete facts are sought and pieced together with painstaking exactitude to make arguments of enduring solidity and strength. There can be no blurred outlines, no fantastic vistas or visions, no cloudy mirages for people of this way of thinking. Their mental state is like a tidy austere room, each furnishing in its precise setting, the floor clean swept, the black-and-white pictures geometrically arranged, the light shining clearly, so that no distorting shadows are cast.

There is, then, more than one type of thinking man, just as there is more than one kind of intelligence. This chapter attempts a portrait of the pituitary-adrenal type—he whose concern is mainly with factual matters, with that which might be proven, weighed,

[1]See Chart 23.

Chart 23

HIGH-LEVEL MOTOR TYPE

PHYSICAL APPEARANCE	MENTALITY and EMOTIONS
General (head and face): Fine proportioning in breadth and height. Fullness of forehead expanse. Noticeable elasticity of facial muscle development. Symmetry and clarity of outline. Angular rather than rounded contours.	Balanced state of sensory appreciation and motor impulse.
	Well-directed motor activity.
	Controlled rather than instinctive behaviour.
Forehead: Receding, and measuring at least one-third of the total length of the face. Well-muscled, especially at the brows, but in no way 'cramped'. Proportionately wide and especially full at the temples.	Economy of energy expenditure in bringing thought processes to a conclusion.
	Inate mental practicability.
	Qualities both of criticism and construction.
Eyes: Deep-set, but neither small nor narrow. Upper eyelid barely touches top of iris and lower eyelid, bottom of iris. Clear, lustrous and actively muscled. Quick, penetrating, yet steady and shrewd.	Natural mental independence.
	Discrimination in analysing motives and methods.
	Physical and moral courage.
	Disciplined aggressiveness.
Nose: Convex, with broad ridge its full length, although having no appearance of sharpness. Fine, but not thin nostrils.	Breadth of thought, power of concentration, discernment of values, logical trend of mind.
	Accuracy in observation. Stable self-confidence.
Mouth: Wide, compared with other features. Upper lip, slightly thinner than the lower—neither protruding beyond the other. Activity of muscle resulting in expressive mobility.	Discretion and tact, absence of rashness, excitability and abruptness.
	Active sexual interests, but selective and discriminating.
Chin: Like the rest of face is well-muscled, showing no excess of bone or fat. Clearly cut jaw-line, chin top rounded rather than square or angular.	Nervous alertness without outward display of nervousness.
	Efficiency in concrete and abstract reasoning.

ABILITY

Creative in a constructive sense. Tenacity in bringing projects to maturity
Invariably systematic.
Professional, scientific and business type—to be found in hospitals and laboratories, schools and universities, law courts and business houses, governing bodies and scientific groups

analysed beneath a microscope, chemically tested, or set down in unequivocal black and white. The mental processes are motor-activated and practical. There is little waste of brain energy for the thinking is directed always to an end, to the achieving of a set solution or proof, the Q.E.D. which cannot be attained (and is rarely desired) by the creative artist.

The pituitary gland is that which contributes so forcefully towards the development of 'mind', and in alliance with other well-balanced glandular functioning in which the adrenals' power is predominant, it brings about the particular kind of intelligence or ability common to the scientist, doctor, engineer, lawyer and all like professional men. With this type of intelligence a certain combination of general physical traits is to be expected.

In male and female, the various contributory glands are healthy, their influence on body and brain, of great strength yet well balanced in degree of power and distribution. The sympathetic nervous system with its various branches, is kept well toned and 'tuned' by the thyroid. The recording and reasoning brain cells, serviced jointly by the thyroid and pituitary, are maintained in an excellent condition of receptivity and retention, as might be an excellently organized filing system. The motor part of the brain is in a similarly well-toned state, enabling promptitude and efficiency of action, combined with caution and elasticity of nervous control. Such a combination of strength and restraint is natural to the pituitary-adrenal of high mental and physical development.

Physique

We have already emphasized that the size of the head is not, in itself, any reliable indication of any especial kind of brain development or functioning. Neither are any other physical aspects of size—the length of leg or circumference of waist, for instance—in themselves indicative of particular states of general bodily health or mental capacity. The term '*pituitary*-adrenal type' by no means suggests that the subject's stature is abnormally great or small, or that he exhibits any of the freakish malformations sometimes occasioned by one part of the pituitary's functioning during growth.

The implication is, however, that regardless of the pituitary's functioning in skeletal formation, this gland, in the pituitary-adrenal type, motivates a high brain development and maintains a healthy balance with other endocrines in the chain. If, during part or all of the growth period, the pituitary has been in a state

of hypo or hyper-function, then the physique will be of unusual construction, the skull perhaps massive or dwarfed, or some aspect of the bony framework disproportionately large or small. The facial features of all normal subjects, however, conform to one general pattern—delicacy of strength, a fine proportioning—breadth, height and fullness of forehead expanse, and a noticeable elasticity of the facial muscles.

Head and face[1] (again regardless of size) possess symmetry and clarity of outline. The nape-line is well marked. The brow has no crudity of fashioning such as is common to lower-adrenal-level prototypes; its appearance is that of compression but not restriction and it forms an outjutting ridge low over the eyes. The receding forehead itself has no aspect of rigid muscle 'cramp' or encasement; its skin has no marked tightness. This might be called the ideal type of forehead—which poets have eulogized as 'the noble head', 'the lofty brow', and which sculptors have so often depicted as signifying the highest qualities of mind.

The eyes are deeply set, but neither small nor narrow. A further illusion of depth results from the brow compression, although there is no cramping of the eye muscles. The upper eyelid barely touches the top of the iris and the lower lid, the bottom of the iris. The eyes are clear, lustrous and actively muscled. Their qualities of observation and penetration are keen, yet their activity has no impetuosity. Their quickness, steadiness and shrewdness typify the subject's mental qualities. They are the 'considering' eyes of the analyst, the diagnostician, the practical thinker.

The nose is convex, the ridge, broad from nasal tip to brow juncture, high between the eyes. Despite this outward curved ridge there is no appearance of sharpness. The nostrils are neither crudely thick nor supersensitively thin.

Next in importance to the eyes, the mouth is the most noticeably evolved feature. In comparison with the facial breadth it is wide, and the upper lip is slightly thinner than the lower which displays much of the red tissue. Neither top nor lower lip protrudes beyond the other. In all mental or emotional moods—in speaking or smiling, an activity of muscle, resulting in expressive mobility is again characteristic.

Like the rest of the face the chin is adequately muscled, showing no excess of bone or fat. The jaw line is firm and fairly sharply cut, and the chin tip rounded rather than square or angular.

It cannot be expected that the features of every adrenal-

[1]See Figs. 24 and 25.

pituitary type will conform in every minor respect to this physical picture, or that his character traits will include all those common to the average person on this level. Again, as has been earlier stressed, the 'average person' is a rarity, and probably more an idea than an actuality. Yet for the purpose of brevity and illustration, this composite 'average' must once more serve as a pattern which, in real life, has innumerable small variations.

A Highly Evolved Personality

Many pituitary-adrenal persons enjoy a balanced state of sensory appreciation and impulse, in co-ordination with the constantly well-directed motor activity. Their behaviour is rarely instinctive and unlike that of adrenal types on lower levels, who must translate every impulse into action. The adjective 'balanced' suggests an excellent control over all mental processes and emotions. In conjunction with the more ordinary quality of mental alertness, there is a breadth of thought, a power of attention, a discernment for values, an analytical, logical trend of mind, and an economy of energy expenditure in bringing the thought processes to their conclusions.

Such power of observation is natural and easily developed, along with an innate practicability and a caution (not necessarily conservatism) which eliminates foolish rashness or waste of effort. Invariably systematic, pituitary-adrenals plan all their activities carefully, from a day's work to an extended enterprise, and maintain a steady patience in the bringing of any mental creation to maturity. Difficult problems rarely discourage or defeat them; rather it might be said that such subjects enjoy the mastering of what, to many, is baffling. They possess the qualities of both criticism and construction or reconstruction, and are never satisfied with slipshod or hit-and-miss ways of thinking or behaving. Possessing capacities both for accuracy in observation and for controlling their instinctive emotions, they are able to judge human beings with impartiality, and are rarely confused by would-be beguiling surface impressions. Having a stable self-confidence, they rarely attempt to disguise themselves in any way; it is unlike them to pretend to any abilities which they have not, or on the other hand, to belittle the valuable qualities which they know themselves to possess. At times this self-knowledge develops into self-esteem, and thence to a perhaps pardonable species of egotism. Yet this is usually tempered with dignity and pleasantness of manner. Their aggressiveness is never flamboyant, but it is there, and shows itself in the firmness with which decisions are

Fig. 24

A HIGH-LEVEL MOTOR TYPE

(Male: Full face and profile)

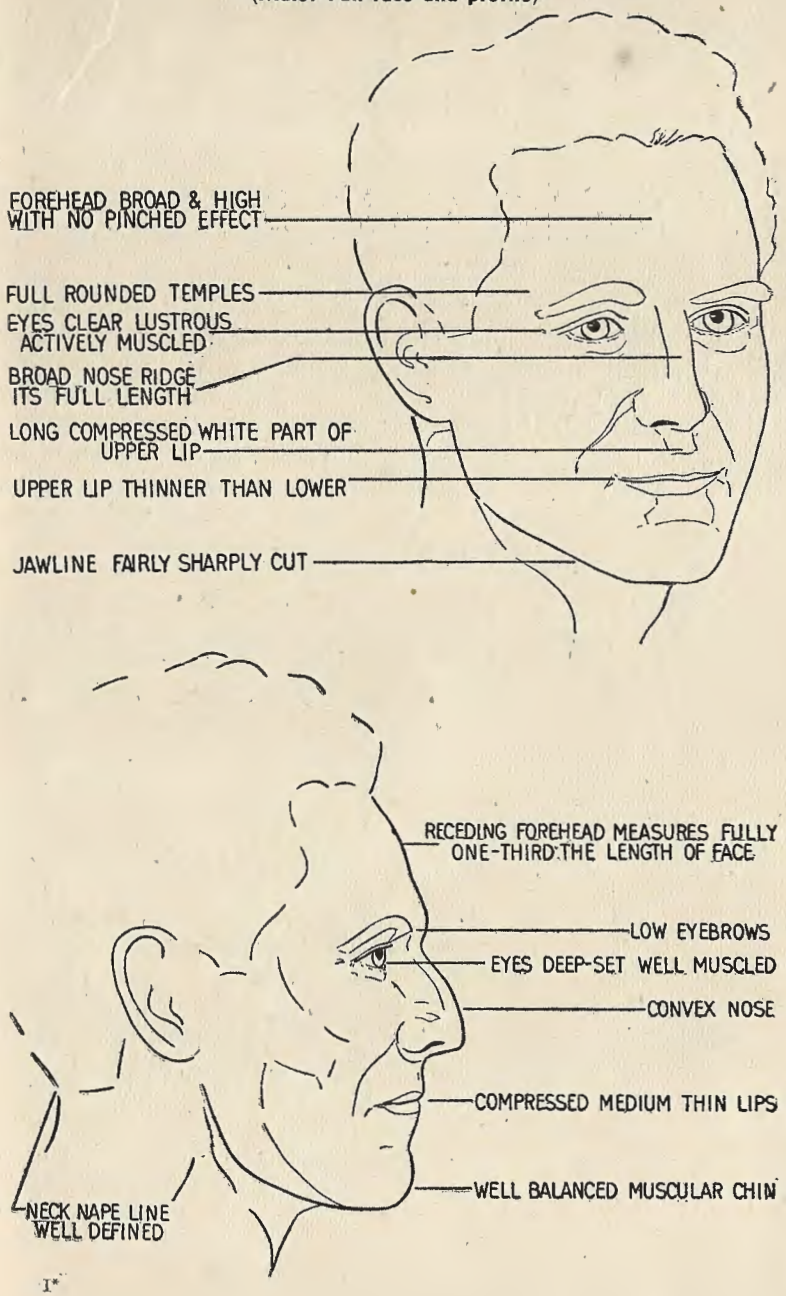
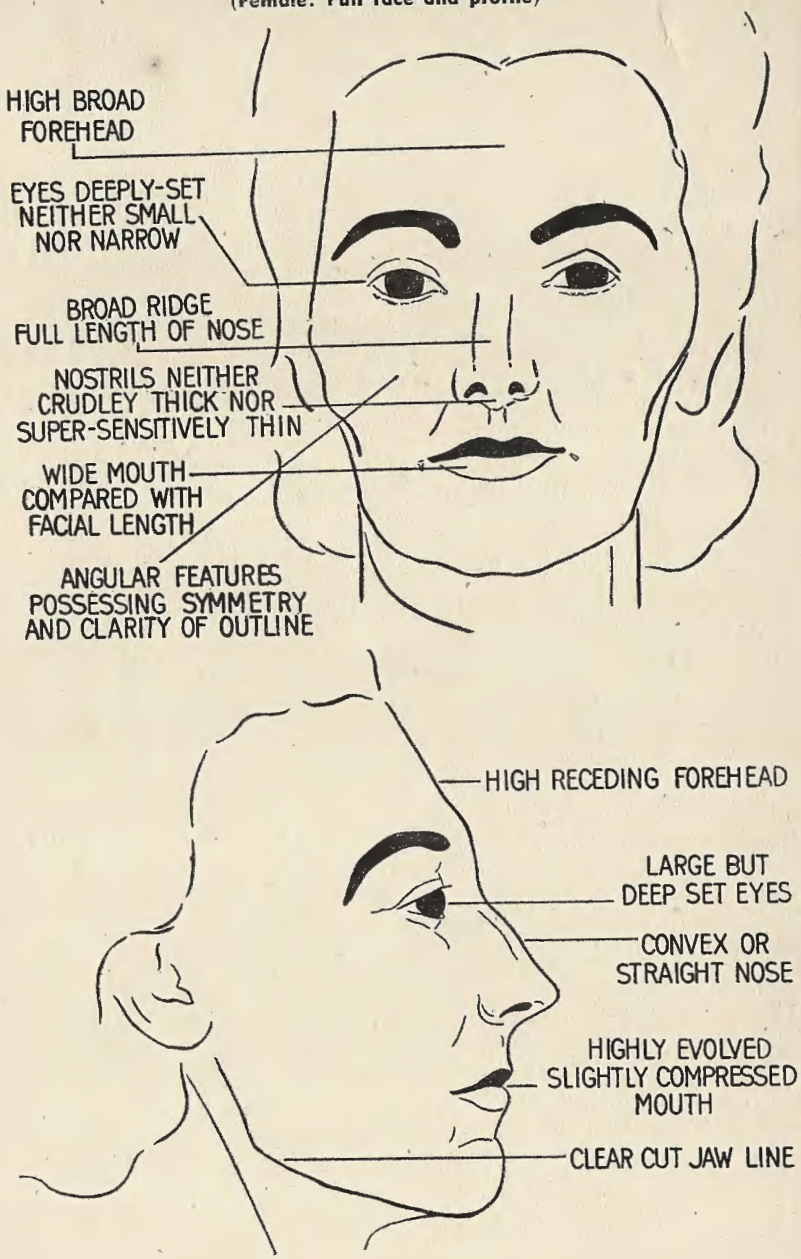


Fig. 25

A HIGH-LEVEL MOTOR TYPE

(Female: Full face and profile)



made, in the refusal to be 'managed' to any extent by others, and in the unconquerable spirit in which projects are pursued. Anger, or in fact any unruly emotion, is kept well in check, and only on rare occasions of extreme provocation is it shown, and then forcibly. Justifiable irritation or dislike may be more often indicated in edged expressions of rebuke, a movement of annoyance, or a swift dismissal of the subject or person in question. On the whole, however, a man of this type displays little 'temperament' for he is usually endowed with a sense of humour and proportion.

Since he is not inclined to be prejudiced on any matter, people come to him for advice or for reassurance when their peace of mind has been troubled. Discretion is natural to him, just as rashness, excitability or abruptness is foreign. Although nervously alert, he gives no impression of nervousness and pursues a smooth and even course in any discussion or project fulfilment, often imposing this restful quality on others merely by proximity. He is likely to have many friends of his own type, for he enjoys good argument, the exchange of ideas, the matching of wit, the sharing of common ideals and ambitions. Yet his social life is usually, for him, secondary to his chosen work to which he devotes himself, often to the exclusion of physical comfort or sociable recreations. And it is characteristic of him to expect his associates and subordinates to exert the same self-discipline. He is an inflexible though not domineering taskmaster who expects work of the highest quality and usually gains the highest measures of respect and effort from those whom he employs.

The monotony of routine is endured by him only if it is necessary to the furthering of creative effort, but he is capable of taking endless pains and of concentrating for lengthy periods on the most minute details if he feels this essential to the work on hand. Rebellion results only when the natural independence of this type is curbed to a restrictive degree. Mental independence is invariably a product of a highly evolved mind which will not accept ready-made opinions or be dazzled by high-sounding slogans or dictums. A person of such mentality cannot be lazy or given to 'wishful thinking'. If such a man, for his private gain, allows himself to follow a line of conduct in any way injurious to society, it is certainly not because he is incapable of realizing his duties and obligations, but rather that he has deliberately chosen to ally himself with dishonourable people and pursuits. As a leader of men he has extensive powers, more perhaps than any other type.

Emotionally, the pituitary-adrenal man, because of his exterior

calm, his insistence upon facts rather than theories, and his refusal to submit readily to outside influence, may be regarded by some as phlegmatic or without depth of feeling. This misinterpretation may occur because of the subject's excellent emotional control which rarely permits superlatives of speech or unconsidered action of any kind. The emotional response is in fact, active, though never exaggerated. Sexual interests are by no means negligible, but they are well directed, discriminating and selective.

In all branches of constructive endeavour such men may be found. They take their places in all the world's hospitals and laboratories, in schools and universities, in governing bodies, scientific expeditions, in courts of law, business houses, and in all fields where the keen, highly trained mind may find scope for the development of ideas and the possibility of pioneering. Women of this type engage actively in these same fields, where they maintain a high level of efficiency and compete most successfully with men for the high posts of professional and commercial life. A regime of domesticity rarely appeals to them, for the routine of home-making so often necessitates, at least in some measure, the curbing of a wider constructive vitality, and the restricting of high-grade mental faculties. Such women are by no means the masculoid, unattractive persons portrayed by those who envy them; they are usually excellent conversationalists—possessing poise and tact, smartness of appearance and pleasantness of manner to a marked degree.

Hereditary 'Gifts' Utilized or Neglected

It is interesting to compare two pituitary-adrenal men—the first having been born of wealthy, highly evolved parents, and the second of sound but not particularly distinguished stock. The first inherits a finely bred constitution, a quickness of mind, a capacity for learning and further development. The second is endowed only with a sound body, a native agility of mind, and a healthy, intense curiosity about the world in general.

It is quite possible that of these two boys, the former will fail to make the most of his potentialities, while the latter, because of the stimulus afforded him by his less comfortable environment, will develop his capacities to their fullest extent, rising, in fact, from the intermediate adrenal level, to that of the pituitary-adrenal by the time he has reached thirty-five years of age. Even though he has few early educational advantages and is perhaps economically forced to begin earning his living while still in his teens, he works hard, puts his experience to useful purposes, neglects no

opportunities for self-advancement, obtains books and shows persistence in self-development by every possible means. Observant and single-minded, he makes progress, for his qualities are worthy of recognition, and he is likely to make a very favourable impression upon his employers and associates. Having gleaned his knowledge by his own arduous methods, he is unlikely to forget what he has learned, and as unlikely to take for granted any of his mental assets. If eventually he achieves a completely favourable environment, he thrives in it, using it to the fullest measure, wasting nothing it offers, and gaining always a higher degree of knowledge and culture. In him, intelligence was first a rough admixture which yielded its final treasure only by means of a complex refining process. His native wit or shrewdness, having achieved contact with trained and highly developed minds, is now a balanced quality of mentality.

The pituitary-adrenal type whose first environment is abundant in opportunities and examples, does not necessarily attain lasting heights of achievement, for the environmental stimuli to self-development may be lacking. The course is too easy, parents and friends too admiring, prospects too rosily tinted. This type of boy finds his school life a not particularly exacting era of prize winnings and scholastic achievements. It is rarely necessary for him to pit his wits or his brain powers with any grimly serious or sustained effort against those of his associates. He is regarded as 'clever', certain to enjoy a brilliant and exalted position in one of the professions. And in some cases this type of boy fulfils all expectations. Highly bred, equipped with the finest possible education, given the environment most suitable for leisured thinking and bodily comfort, he fits with natural ease into a distinguished post. But sometimes, because he senses no need for competition, he grows careless and conceited. He disdains the plodding methods of his friends, believing himself at any moment capable of outdistancing them. If through family influence he is well placed in business, he may fail to use his advantages or to show discretion in his responsibilities. If his egotism, the consciousness of his 'cleverness' increases, it is likely that his sense of values will become unbalanced and his mind confused with the stresses of contradictory influences. Perhaps he chooses to associate with people who, while flattering him, offer him no mental stimulus and aid further in his deterioration.

Such pituitary-adrenal types are not uncommon; their speech is marred by a conceited assurance, an intellectual snobbery, a vague indication of great future achievements which may be

accomplished with incredible ease and swiftness when the time is ripe. Their aspect as men is no longer balanced, for in the slow process of deterioration their physical fibre has weakened. Although not lazy, they cannot pursue one object steadfastly but veer from one project to another, whipping up momentary enthusiasms, outlining (with skill and undoubted perspicacity) plans of action which fail because their originator grows bored or dissipates his energies elsewhere. They are, in fact, the unexpected, clever failures, the quick-witted ne'er-do-wells, the talented wasters of their hereditary gifts.

These opposite portrayals emphasize the truism that man either advances or falls back; he must develop through striving, or drop down and down to lower levels of character and ability. He can never take his assets for granted if he wishes to use his life to its fullest extent. The inheritance of a highly evolved, efficient body and brain is only the basis on which a man may build. The physical and mental material must be used and tested, conditioned and exerted, if it is not to fall into an unorganized and flabby state of disrepair.

Hyper-Pituitary-Adrenal Types

General

All lower-level types share one especial inferiority—that of inadequate pituitary function, for the degree of intelligence may only be measured by the degree of pituitary activity; a high quality of mind can only be the product of a brain serviced by well-balanced and maintained hormonal mixtures, a constant sufficiency of evenly distributed adrenal, thyroid and pituitary influence. When any of these endocrine secretions is deficient there must be a corresponding deficiency in some sphere of the brain's working—in the reasoning, the memory or the action-prompting impulses. Such imperfections are clearly evident in lower-level adrenal and thyroid types. In the former the steadying qualities of reflection are lacking, there being in place of these an abundance of impulses towards physical action. In the less evolved thyroid types there is an insufficiency of motor mentality for the discipline of the sensory impulses. And in the equipment of both, constructive thought and reasoning faculties have a very small place. If then, the physical condition of the brain is poorly evolved, there can be no expectation of any outstanding mental

qualities. Poverty of intellect must always accompany any basic crudeness, lack of balance or deficiency of quality in the endocrine chain.

A Highly Evolved Mentality

Conversely, a superabundance of one or more of the brain-toning and conditioning secretions is followed by an unusually powerful mental activity in some direction. There may be an extraordinarily acute mental-emotionalism, a proclivity for profound reflection or for active, concrete constructiveness in some intellectual sphere. And invariably, such mental hyper-activity is accompanied by some eccentricity of behaviour, instability of temperament, some uncontrollable departure from the accepted standards of conduct.

The *hyper*-pituitary-adrenal type may be expected to be male since the adrenal qualities are most often found in men. In such a person the basic motor traits of aggressiveness, practicability, restlessness and natural egotism are tempered by mental brilliance and subtly altered by the thyroid's high standard of performance. Many of his characteristics are akin to those of the pituitary-adrenal type, but his range of thought extends far beyond mere 'talent' or 'cleverness'. This abnormal brilliance is often misunderstood. Its rarity sets its possessor apart from his fellows who may regard him with awe, or mistrust, with blind idolatry or impatient incomprehension. Usually smaller minds are bewildered and made suspicious by the greater one's exceptional productivity. They tend to disregard the mental excellence, and to centre their attention upon the accompanying personal peculiarities, eccentric behaviourisms, irregularities of habit. Such critics are as slow to appreciate the greatness of genius as they are swift to censure its quixoteries of conduct.

Abnormality and Inspiration

The term 'abnormality' is often thought to presuppose some kind of freakish inferiority, some unpleasant diversion from the average or normal. Yet there is a certain mental abnormality which, by reason of its immense power and striking superiority, differs from the ordinary. Its quality may be uneven, possibly lacking consistency of excellence, but viewed generally it is sometimes a force productive of the most supreme intellectual triumphs. The *hyper*-pituitary-adrenal subject is capable of periods of inspired artistic effort. His remarkable mentality can give neither him nor his associates any rest. Its power is displayed in dazzling,

meteoric flashes of writing or speaking, or physically artistic attainment. True 'inspiration' is a quality unknown to many, but in the *hyper*-pituitary subject it is a fairly frequent actuality, an exaltation of the spirit which exacts an aftermath of prodigious nervous fatigue. The products of such inspiration are sometimes acclaimed by those who are at least partially able to understand them, but it often happens that such works can have no immediate acceptance or true recognition because they are so far in advance of contemporary thought. Genius is not bounded by the ordinary rules of time or place, nor does it suffer the restrictions of contemporary modes of thought. Being a law unto itself, it may refuse to be limited by any boundaries of orthodox conduct. For the *hyper*-pituitary-adrenal subject is above all else highly individualistic. He is strenuously emphatic in his refusal of the hackneyed, the narrowly worthy, the dully respectable, and his egotism may infuriate his associates. Utterly convinced of the rightness of his ideas, he is usually possessed of an unquenchable desire to impart his message to the world; resistance to his dictums usually has the effect of stimulating an intensification of his efforts. His works are not easily ignored, for their controversial nature swiftly inflames public opinion, occasioning intellectual feuds, strenuous activity in artistic circles, and a seething mixture of adulation and opposition from all sides.

The 'artistic temperament' lends itself equally to caricature and imitation. Most people, in their various ways, are intrigued by a great man's strange preferences and aversions in matters of eating and drinking, his peculiarities in dress, gait and gesture, his unexpected simplicities and vulgarities, his admixture of supersensitivity and callousness. They regard him as sparrows might a peacock, marvelling at his differentness from themselves.

It is natural that such men should attract to themselves a body of disciples, some of whom are genuine admirers, and others who merely enjoy the sensation of reflected glory, notoriety or martyrdom. It is natural that a figure so much larger than life should be surrounded by those who wish to increase their own stature simply by proximity and slavish copying of his individual mannerisms and utterances.

Intellectual Vigour

The intellectual efforts of the *hyper*-pituitary-adrenal subject are always immensely powerful. In them idealism has a vigorous pugnacious quality; it contains nothing tenuous, vague or self-effacing. The literary works of such men—usually in the fields

of history, biography, science, drama or theology, are couched in the most eloquent and provocative language which may at one moment demonstrate a precise balance and control of thought, and at the next betray an abusive intolerance in its thunderous denunciations. Patronizing, vitriolic, witty, satiric, pungent as his words may be, they compel attention, thrust inertia aside and challenge refutation.

The ideas of the *hyper*-pituitary-adrenal type exist in a perpetual state of flux. Rarely do they hold any serenity or inclination towards compromise; their essence is of turbulence, unceasing exploration, tireless analysis. And always they are marked by a personal individuality so that even if their creator's name were not signed to them, they would, by their unique tone and flavour, be clearly recognizable as his. So powerful is his individuality that it stamps with his identity his every product. It is essential for him to dominate any gathering, whether large or small, in which he finds himself; often he demands respect from others, even while professing to despise their abnegation. He may simulate complete retirement from society, but as a rule effectively ensures that society will continue to pay attention to his sayings and doings. As the ruler of a nation he may be a great power for good or evil; rarely does he permit his will to be denied and usually his people obey him implicitly. He is the stuff of which dictators are made, the omnipotent rulers of cliques and countries. His singlemindedness may inspire others towards high achievement or total disaster, for he is incapable of following the middle or mediocre path.

Physical Characteristics

The physical appearance of such a person is always unusual. The head and face are strongly formed, the lines of forehead, nose and chin forcefully outstanding, the eyes large and deep-set beneath the broad, overhanging brows, the mouth firmly muscled and set in an unequivocal mould, the eyebrows usually thick and set low on the brows, the whole muscle structure of the face finely modelled so that there is neither slackness nor flaccidity of contour. Yet the strength of such a face owes nothing to primitive crudity; it is rather due to the most highly developed physical formation. Sensitivity may be evident in it, but never indecisiveness—cynicism and ruthlessness perhaps, but rarely flippancy.

Genius and Insanity

Having accepted the fact that normality (as it is generally

understood) has little part in the *hyper*-pituitary subject's composition, it will be readily understood that the borderline between genius and insanity has no clear demarcation, and that the more pronounced the pituitary powers, the greater the possibility of the subject losing every possible claim to mental normality. It is, of course, entirely wrong to assume that all types of insanity have any connection whatever with genius; the 'burning out' of the pituitary factor causes mental derangements which have nothing in common with other mental confusions and abnormalities. But when the pituitary function is of too high a quality, and too heedlessly stimulated, there is some danger of the subject becoming partly or wholly insane.

It cannot be denied that potential degrees of insanity are to be found in all persons of mild or extreme eccentricities and odd or brilliant ways of thinking and behaving, and that these insanity potentials are increased in proportion to the unusualness of the conduct, the departures from the orthodox, the uncommonness of the thought processes. Yet often such 'insanity' may be evinced in the mildest form, requiring no treatment, and in fact may be a useful and invigorating attribute to character. It is only when external pressure combines with over-stimulated powerful inner forces, that genius may be overstepped. There are many historical instances of mental giants whose years of brilliant achievement were ended in the tragedy of insanity.

Excess Pituitary Stimulation

If the pituitary is unstable—that is, alternating its usual strength of functioning with occasional extraordinary effort—there is a danger lest a vicious circle be commenced in the cerebral hemispheres. It is the tendency of *hyper*-pituitary subjects to expend an unusually strenuous mental effort, which in turn stimulates the pituitary gland to further, still more intense activity. If this circle is unchecked the results upon mentality may be unfortunate, if not wholly disastrous. Sometimes such persons suffer a severe migraine, in this case a type of headache cured only by the most delicately skilful operation upon the pituitary. It is characterized by a sharp, aching pain in or around one of the eyes, while the headache itself is centred in the forehead. This acute discomfort is occasioned by the pituitary's swelling to a size which the *sella turcica* (the bony box enclosing the gland) cannot accommodate. Intense mental effort expands the pituitary and if the *sella turcica* cannot allow for this expansion, a migraine ensues. The eye nerves which run across the 'ceiling' of the

pituitary cavity must likewise be painfully affected by any serious swelling of the gland.

When such pituitary expansion is maintained for any long period, with a corresponding pressure upon the walls of the cavity, a bone erosion may commence, or a tumour of the gland itself—this being accompanied by an increased output of pituitary secretion. At this point the vicious circle is at its most troublesome stage and may be checked only by the most expert medical attention. It is unlikely that other indications of the trouble will be manifest, apart from the severity of the migraine headaches, and the unusual degree and persistence of mental activity.

The *hyper*-pituitary-adrenal subject whose pituitary cavity is sufficiently large to allow for the gland's expansion, is indeed fortunate. His mental potentials are far from ordinary, and he may concentrate these to almost any extreme without endangering the actual physical mechanism. If his gifts are appreciated, and he is able to develop them without being forced to waste his energies in mundane occupations, he may well be regarded as living life to its fullest extent, and as making invaluable contributions to the knowledge of both his own and future generations.

CHAPTER VI

HIGH-LEVEL SENSORY TYPES

(*High-Level Sensory Types:* those persons, male or female, whose basic 'thyroid' composition is balanced by the accelerated activity of the pituitary gland, the fundamental qualities of disposition and mentality being imaginatively creative, sensitive, fastidious, reflective, idealistic and artistic.)

> Since the body is the pipe through which we tap all the succours and virtues of the material world, it is certain that a sound body must be at the root of any excellence in manners and actions.
>
> EMERSON.

Sensory Intelligence[1]

OF the two main evolved kinds of intelligence mentioned in the previous pages, only that natural to the pituitary-adrenal type was considered in any detail. As opposite to this 'scientific' intelligence, the pituitary-thyroid variety might be termed 'artistic', for its basis is a keen sensory perceptiveness rather than a practical interest in concrete facts. Here the feminine or creatively imaginative traits of the basically thyroid may be contrasted with the masculine or unemotional qualities of the basically adrenal type just described. Yet on this level, pituitary-adrenal and pituitary-thyroid types demonstrate one mutual factor, highly developed mental equipment which, though functioning along different lines, has for each type, a stabilizing quality.

Thus the two opposite, balanced types meet on a common ground of high intelligence; their interests are not the same, nor their methods of approach to most subjects, but neither is incapable of understanding the other's enthusiasms, or in some measure actually participating in them. Each achieves the pituitary 'balance' from a different quarter; neither is likely to compete actively in the same fields of endeavour, but together they make up that part of society which thinks with concentration and effect, translating thought into effort of high quality, disseminating ideas, stimulating reflection in others, gathering knowledge industriously and enthusiastically—being engaged always with the major questions of human progress. The pituitary-adrenal type seeks

[1]See Chart 26.

Chart 26

HIGH-LEVEL SENSORY TYPE

PHYSICAL APPEARANCE	MENTALITY and EMOTIONS
General: Thyroid characteristics of curved rather than angular outlines.	Strongly humanitarian and sympathetic with keen sense of justice.
Neck: Long and slender, with clear nape-line.	Quiet determination. Tolerant, serene, non-aggressive outlook.
Forehead: Almost vertical, fully one-third the length of the face, and slightly curved. Width at crown more pronounced than at brows.	Well-controlled though acute sensitivity. Some shyness and reserve.
Temples: Full and lacking any depression.	Expressive conversational qualities.
Eyebrows: Slightly arched, of fine texture, their position low on the brows.	Mentally (rather than physically) restless and independent.
Eyes: Large, medium deep-set, and well spaced. Upper eyelid covers about one-sixteenth of the iris, lower lid barely touches its lower edge.	Subtle tactfulness. Gracious, sociable, considerate manner.
Lustrous tone, clear and expressive.	Originality and keen discrimination in artistic appreciation and creativeness.
Nose: Measures one-third the length of face and is either straight or concave, with wide ridge its full length. In later adulthood the nasal tip tends to broaden.	Chief enthusiasms are artistic rather than materialistic.
Mouth: Exceptionally fine muscle support. Upper and lower lips display much of the red tissues yet the mouth closure line is firm.	Respect for order, moderation, simplicity.
Chin: Finely balanced with a centre 'ball'.	Avoidance of the quarrelsome, fanatical and bizarre.

ABILITY
Chiefly as writers, artists, librarians, etc. Finest ability is for interpretation and self-expression, not always in speech but through the mediums of writing, painting or music, etc.

knowledge in an exact, mathematical fashion, while the pituitary-thyroid's approach is more concerned with the emotions, the despairs and pleasure, the human problems, the diversities of nature—qualities which defy the exact calculator or practical analyst.

If, for instance, a pituitary-adrenal woman and a thyroid-pituitary woman, both equipped with fine mental capabilities, were troubled by the same question, namely a condition of poverty and neglect in a slum area, the first investigator would doubtless set about her task with a systematic survey of housing, the history of the area, the kinds of disease or ill-health common to it, the numbers of juvenile delinquents, the wages earned by its inhabitants, and the possible attempts previously made to alleviate the bad conditions. All her material would be strictly verifiable, catalogued, conversations recorded verbatim—the whole account impartial, accurate (so far as facts were concerned) and probably conclusive. The pituitary-thyroid type of investigator would make her report less statistical. Though she would not be careless with figures or ignore the strictly practical side of the question, she would stress the frustrations, the preventable tragedies, the waste involved in the situation; her picture would be colourful, human, sympathetic. Her campaign for reform would be in brief, an appeal to people's emotions, whereas her colleague's would be a forthright statement, facts and figures speaking for themselves. Neither approach may be praised above the other; the success of either would depend largely upon the public to whom it was addressed.

Physical Characteristics[1]

The physique of the pituitary-thyroid type bears the thyroid (or feminine) characteristics of roundness rather than sharpness of outline. The body, whether stout or extremely slim, is well proportioned and never ungainly. In the average pituitary-thyroid woman the shoulders and breasts are well shaped, the waist much narrower than shoulders or hips. Few defects such as knock-knees, bow-legs, 'rounded' shoulder blades or flat feet occur in this type. The neck is long and slender, with a definite nape-line, and the balance of the head is especially marked, the chin (not protruding) touching an imaginary vertical line from the brow. The facial cast is oval, made up of gradual curves, its moulding symmetrical. The forehead is almost vertical, high and slightly curved, measuring fully one-third of the total facial length, its

[1]See Figs. 27 and 28.

Fig. 27

A HIGH-LEVEL SENSORY TYPE

(Male: Full face and profile)

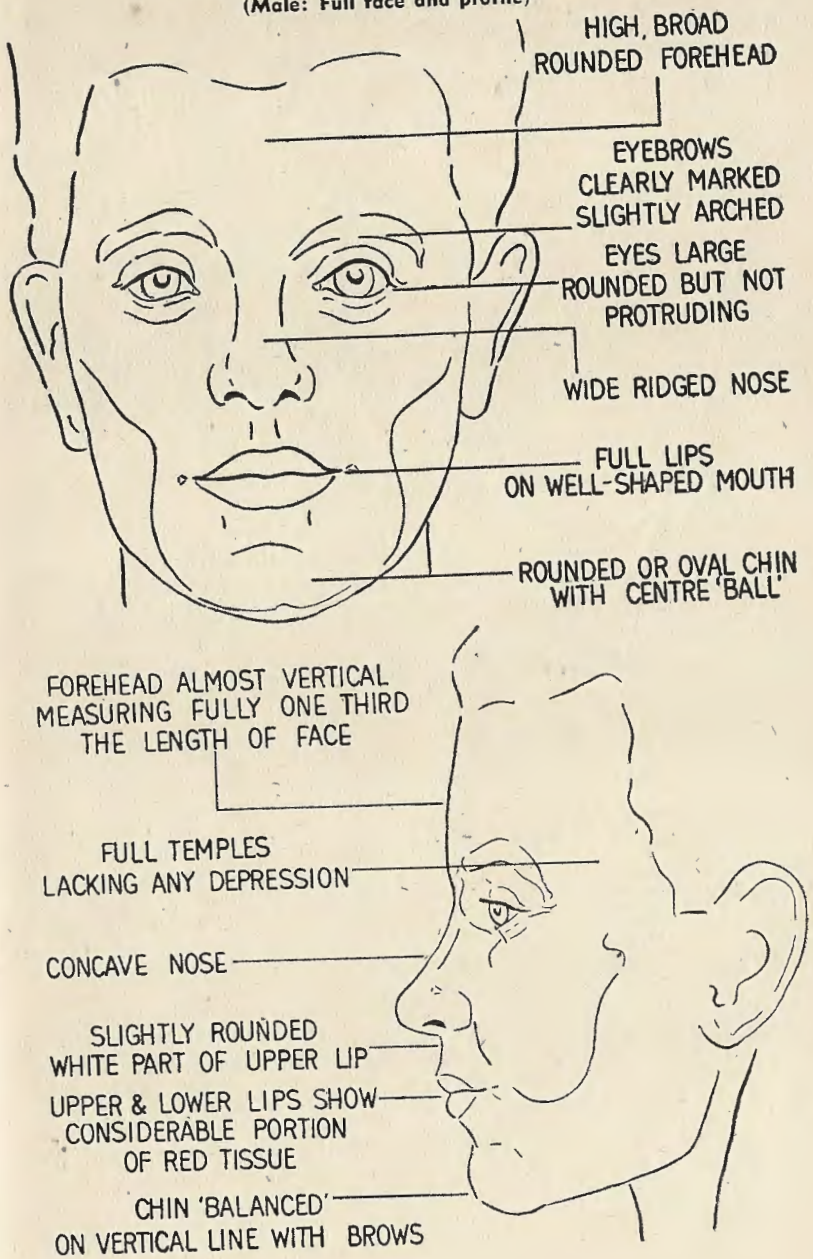
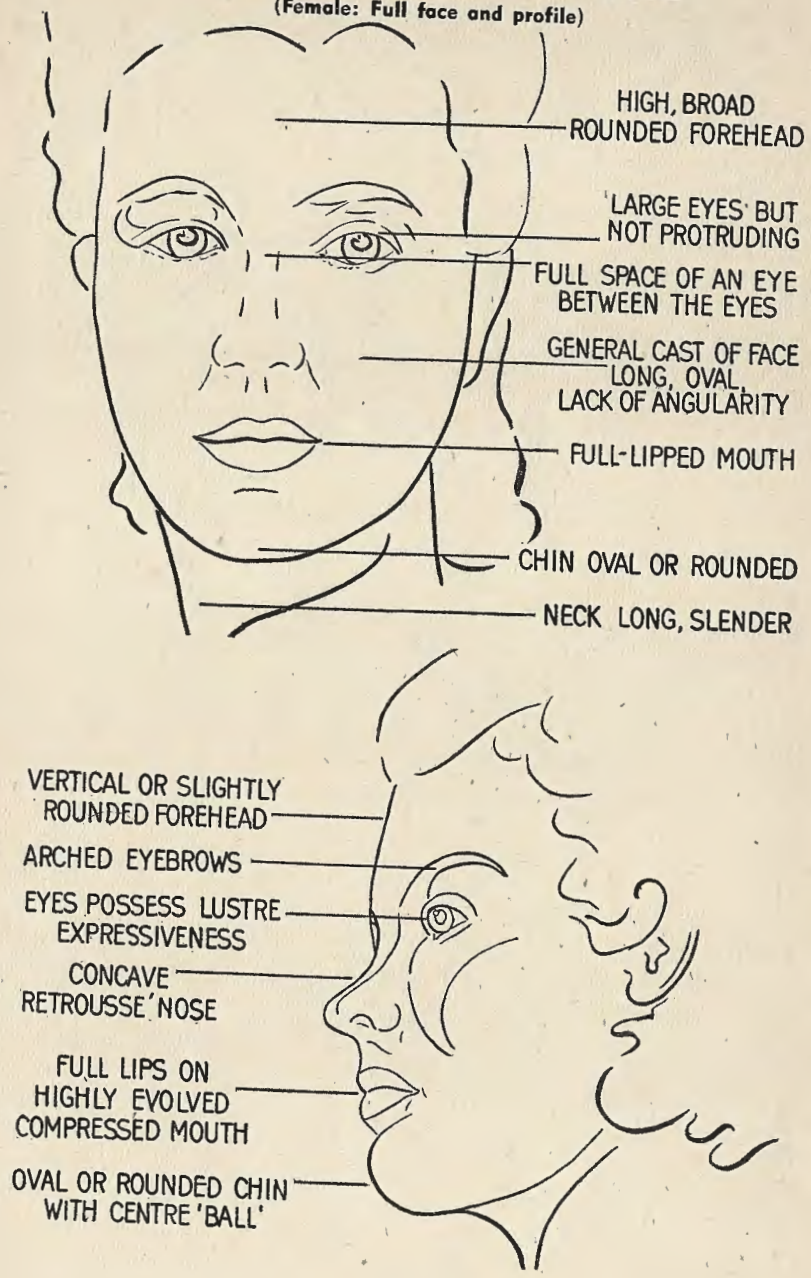


Fig. 28

A HIGH-LEVEL SENSORY TYPE

(Female: Full face and profile)



width at the crown more pronounced than at the brows. The temples are full—noticeably lacking any depression or sunken formation.

The eyebrows are usually clearly marked and slightly arched, their texture fine, and their position low on the brows. The eyes themselves are perhaps the most revealing features; they are very slightly deep-set and well spaced, with the full length of an eye between them. The eye sockets are less hollow than those common to adrenal types; these eyes appear large and rounded, yet not protruding. The upper lid covers approximately one-sixteenth of the iris, while the lower lid barely touches its edge. Most noticeable, as in the adrenal pituitary type, are the eyes' qualities of lustre, clarity and expressiveness natural to those whose powers of observation, imagination and intellect are well developed.

The nose is of medium length, its measurement roughly one-third of the length of the face. Its shape is concave, yet well evolved and a wide ridge follows its full length. In subjects of thirty years and over, the nasal tip tends to broaden.

The space between nose juncture and upper lip is slightly rounded, yet compressed. The mouth, in harmony with all other features, has exceptionally fine muscle formation; there is no hint of crudity in its structure. Upper and lower lips display a considerable part of the red tissue, although the upper is slightly thinner than the lower. The chin is finely balanced, with a centre 'ball'.

In this type the sympathetic nervous system functions with a high degree of efficiency, the thyroid gland's effective conversion of foodstuffs resulting in a well-balanced distribution of bodily fat and energy production. While this gland is dominant in such a subject's physical and psychical being, it maintains an excellent co-ordination with adrenal and pituitary influences.

Personality

People of this pituitary-thyroid type are invariably strongly humanitarian; their sympathies are swiftly aroused, and their sense of justice a powerful factor in all their activities. Being themselves sensitive, they are swift in their defence of any person or creature whom they see persecuted or afflicted. Although not easily aroused to anger or aggressiveness, they may on such occasions display a vigorous combativeness both in speech and movement. Physical cruelty is foreign to them; they are the champions of peace, the advocates of serenity, the cultivators of beauty. Their energies are rarely destructive, for they have few personally

antagonistic impulses, and in general maintain an even tolerance towards minor irritations and obstructions. Their determination is of a quiet order; usually they pursue their ambitions without fuss or publicity seeking. Although enthusiastic, sociable and stimulating conversationalists (in the right company), they prefer a peaceful background and a few chosen friends rather than any large assembly of gay acquaintances. It is natural for them to savour their enjoyments rather than to snatch greedily at pleasant experiences. Normally they are not physically restless; mentally they are more so. Like the adrenal-pituitary type they are not content with ready-made opinions, or readily influenced by slogans or the pressure of reiterated dogma. Although not obtrusively independent in their physical behaviour, their independence of mind is one of their most important characteristics. This same mental independence manifest in the adrenal-pituitary type is sometimes conducive to cynicism, a wariness of mass thinking, a profound suspicion of generalities. In the pituitary-thyroid subject this individuality of mind has a more tolerant character and a more subdued expression. There is, perhaps, less rigidity of opinion and a greater tendency to compromise. The independence, however, is strongly rooted and may be strenuously asserted when any matter of principle arises.

Tactfulness in this subject is perhaps of an even more subtle nature than that of the adrenal-pituitary type, for it extends into the smallest matters of personal life where grace of manner and consideration are sometimes not expected.

In her appearance and the surroundings she makes for herself, a woman of this type maintains originality and a keenly discriminating sense of colour and form. Yet mere decorativeness does not satisfy her, for she equally respects and understands that which is utilitarian. The furnishings of her home will please the eye, but they will be serviceable as well. She appreciates the tools and appliances necessary for maintaining a house or running a factory, but her interest in them ceases with this appreciation; she has no profound curiosity concerning their less obvious workings, or the chemical or mechanical plan on which they have been constructed. She is able to harness a machine for her purposes, but her interest is not for mechanics and she prefers to leave severely practical matters to those who enjoy controlling them. Her enthusiasms are not materialistic; she is unlikely to obtain any full measure of satisfaction in the business of buying and selling, or in the forming of any organization which is concerned with purely factual matters. Goods in bulk do not interest her; her acquisitions are usually

carefully made, and her sense of values often unorthodox. It is likely that the friendly gift of a jewel of small monetary worth might please her more than a 'commercial' gem with a coldly superior price tag. She is rarely impressed by any facade of social eminence or material show, and ostentation is one of the qualities which she finds most difficult to tolerate. Just as she refuses to accept second-hand ideas, so does she reject (though usually without noticeable antagonism) associations with people who insist on camouflaging their real selves with an arrogant disguise of sham importance. In this respect she may be termed socially critical.

It should be made clear at this point that only for purposes of illustration has this type been represented as a woman. Men of this same classification are, however, perhaps less in number, just as pituitary-adrenal women are in the minority. Pituitary-thyroid men, while not necessarily in any way effeminate, lack the combativeness and assertiveness generally accepted as bascially masculine traits. Their enthusiasms are artistic; they may be found with their pituitary-thyroid sisters as writers, artists, musicians, teachers and librarians. Their finest ability is for interpretation and self-expression. This last quality may not be shown in speech, but by means of their writing, painting or music; as lecturers they usually suffer some restrictive shyness—a fear lest their audience finds them tedious or unconvincing. Being somewhat prone to self-analysis, they lack the 'adrenal' quality of sustained magnetic self-assurance. Yet they do not lack courage in expression. They may satirize their political leaders, criticize social systems and shame hypocritical practices through the mediums of their pens or brushes. Yet they are not revolutionaries, not unquenchable firebrands who have the powers of inciting others to immediate rebellious action. They have not the physical qualities for aggravating turmoil or stimulating upheaval. They are, in fact, apt to mistrust violence of any kind, and to believe that any necessary changes may be wrought calmly, by sensible people. They respect order, moderation and simplicity. They avoid the quarrelsome, the fanatical, the bizarre.

Pituitary-thyroid children display an early language sense; less quick in arithmetical studies, they have an aptness of expression, an appreciation for new words and an ability for forming them into graphic, unstereotyped phrases. Their drawings may be graded high for originality of subject and choice of colour, but may lack that which some teachers erroneously praise more highly: 'neatness' and 'exactness'. Their capacity for absorbing knowledge is often remarkable if the teaching accorded them is imaginative,

human, and not confined to a parrot-like emphasis upon facts, dates, figures, and dry information in bulk. Their dislike of regimentation may be demonstrated at an early age; although not pushful in their individualism they take little delight in massed gatherings or exhibitions. The 'team spirit' is not readily fostered in them; they prefer to share their pursuits with only a few, chosen companions.

For men and women of this type the pains and pleasures of life may be equally acute. Being of vigorous intelligence, they seek constantly the answers to questions for which, often, no proven solution may be found; they are constantly concerned with wider horizons than those which bound their daily living. Just as the pituitary-adrenal type frequently possesses pioneering capacities in the realms of medicine, law and science, so has the pituitary-thyroid individual a deeply rooted curiosity and great strength of mind where human and artistic values are concerned. The same sensitivity which brings enjoyment with its recognition of beauty in tangible or intangible form, can also cause deep, unselfish suffering when it meets mental or physical cruelty, or wasteful stupidity. For this type's sensitivity may be both a bane and a boon, a curse and a means of unending delight. Its manifestations are usually finely controlled; the casual observer might not perceive any outward signs of the mental conflict, revulsion or pleasure which, to the subject, may seem all too visibly revealed.

Because of this sensitivity the pituitary-thyroid type of person tends to shield himself against a turbulent and often belligerent world, to follow pursuits which do not necessitate his mingling in crowds or striving for physical supremacy. He neither needs nor enjoys constant commotion, high-pitched competitiveness, noise for the sake of noise, speed for speed's sake, or the kind of excitement which is born of boredom. Often he is termed an idealist, which in fact he often is, for he constantly seeks perfection even when he is fully aware of its rarity and its tantalizing habit of retreating just a little as he approaches it.

Hyper-Pituitary-Thyroid Types

General

The physiological state of the *hyper*-pituitary thyroid type may be likened to the condition of a mechanism or apparatus so sensitively adjusted, so delicately constructed that it is able to record the most minute degrees of impression. Although fragile it has a certain fine-drawn strength, a highly evolved system of control,

its composition being quite unlike that of more ruggedly built devices which, though limited in their range of perceptivity, are solidly armoured against hard usage.

Supersensitively constructed and endowed with unusual mental powers, the *hyper*-pituitary thyroid subject is unshielded by any phlegmatic dullness of mind or obtuse crudity of body. Basically thyroid, this type is primarily emotional, but the emotional responses are of a unique delicacy, and their constant allies are a restless mental curiosity and a marked philosophical reflectiveness.

The difference between pituitary-thyroid and *hyper*-pituitary-thyroid types is in degree—an intensification of imaginative, reflective and creative power, unusual sensory perceptiveness and an unrelenting mental fastidiousness which is beyond the comprehension of the ordinary person. The critical faculties develop swiftly in such a subject; there is an instant rejection of the shoddy, the second-rate, the ostentatious or spurious, and an everlasting, self-exhausting striving towards the ultimate in perfection in ideals of living and artistic accomplishment.

The Artistic Temperament

That this type should seek fulfilment in the media of art is easily understood. They may be found as writers, painters, musicians, sculptors or connoisseurs in many artistic spheres; their rich creative and critical faculties must find expression, and the highest form of this expression. They cannot be content with half measures. Their expenditure of nervous energy is immense and often extravagantly unheeding of any physical consequences. Periods of inspiration and exaltation alternate with moods of bleak depression. Although not necessarily emotionally unstable, they are acutely susceptible to all emotional stresses, and as vulnerable to small hurts and irritants as they are perceptive of subtleties in all that pleases the senses. Among such people the rare quality of genius is sometimes found, this being an expression of the highest kind of mentality, and the most supreme translation of personal emotion into the nuances and tones of music, literature, painting and all the sister arts. And although this creativeness may be recognized and acclaimed, the subject, being placed on a pedestal by his adulators, finds his loneliness increased. A victim of his exaggerated sensitivity and extraordinary mental prowess, he must live apart from his less accomplished fellows who may regard him with a respectful admiration combined with a conviction that he is not one of them—and this is true, for he may be said to breathe a rarified air, to think on a different plane, to

view all people and things with a strangely concentrated and reflective vision, and to regard many of the accepted social formulæ as shallow, unprincipled or merely foolish.

Eccentricity

The behaviour of such subjects is sometimes regarded as 'odd' or 'eccentric'; in dress, in manner, in speech, in their system of living, they may reject the orthodox because it imposes some petty restriction on their vitalities. They may be accused of exhibitionism, but often what appears to be an attempt to attract attention is merely some innocently private gesture of individuality. Their eccentricities are often no more than honesties of expression, refusals to be confined within the narrow limits of social regulations. Sometimes these refusals are regarded as part of 'intellectual snobbery', which might be the case in persons of lesser gifts but which in them is invariably a physical and temperamental inability to be like their neighbours.

It must be remembered that the *hyper*-pituitary type has little in common with those who, lacking unusual ability, attempt to emulate the exteriors of their superiors. These are the second-rate frequenters of the artistic worlds, the minor characters who throng studios, cafés and theatres in the wake of the truly gifted. Often these followers out-do the eccentric genius in forced eccentricity; they strike violently Bohemian attitudes, scorn all customary modes of behaviour, vie with each other in bizarre speech and manner, and so attempt an elaborate facade of the 'artistic'. They are the masqueraders of genius, but often their talent comprises no more than a glib familiarity with the artistic vocabulary. They are well versed in acting their parts, and can usually persuade each other of latent gifts, but their work betrays a basic inadequacy. The only similarity between these and the genuine *hyper*-pituitary subject is that same sham resemblance which exists between the authentic masterpiece and the inferior copy.

General Physical Charactersistics

The physical appearance of this type, while not necessarily dramatic or highly coloured, is far from ordinary. The facial features follow the lines of the pituitary-thyroid face; the general contours are oval, tending towards thinness, the eyes large, yet deep-set and markedly expressive, as is the finely shaped mouth. All the features show a delicacy of construction; the nostril flanges are thin and finely chiselled, the forehead high, and broader across the crown and the brows, the whole head well shaped and

balanced, the nape-line decisively marked. Such a face shows a self-discipline which cannot altogether subdue or eliminate the signs of emotional reaction. Such a face can neither be blatant in its expressiveness, nor altogether devoid of feeling. As a rule it shows some slight nervous tensity or awareness, and the changes of mood are swiftly revealed in the eyes and the contours of the mouth. The bodily framework is well proportioned on the general principles of the upper-level thyroid type, and the hands, especially, are finely shaped, with delicate bone structure. Hair and complexion are of smooth, silky texture.

Sensitivity

Since most women are thyroid-centred, it follows that the *hyper*-pituitary-thyroid type is most likely to be a woman. Her extreme sensitivity is apparent in her every action. She is as affected by the griefs of others as she is by her own personal sorrows; it is her nature to be defenceless against the most minor imperfections and cruelties of ordinary living, and to wish to shut herself away from the clamour and confusion of crowds and the hectic sociabilities of mass entertainments. Being so easily stirred to emotion by small matters, the impact of surging noise and physical proximities in a large gathering is almost brutal in its effect upon her. In such circumstances she tires quickly, being forced to dissipate her mental energies and to adapt her highly charged emotions to innumerable little conditions and atmospheres. Intensely self-critical and essentially vulnerable she is constantly concerned with her own possible social inadequacy; even while she knows her companions to be mentally inferior she regrets her inability to mingle wholeheartedly. But always her standards of intelligence and her physical fastidiousness make her unable to do more than play a social role. Only with a few carefully chosen and tested companions may she show herself in her true light. A sense of final loneliness invariably accompanies the possessor of great mental power and unusual sensitivity. There is no bridge which she might cross to gain the perfect comradeship of her inferiors. Such an honest self-recognition of superiority has no mark of false pride; it is rather a source of much regret and undoubted frustration.

It is understandable then, that of such a woman it might be said: "But she didn't seem clever to me! She looked perfectly ordinary and hardly said a word. . . ." And indeed in certain surroundings the *hyper*-pituitary-thyroid subject finds all her natural expressiveness quenched. She endures mutely what she cannot

avoid, whereas in congenial society she may appear magnetic, swift and original in speech—the gifted and uncommon woman she really is.

Intensity of Perception

The right kind of environment is supremely important to anyone of this type. In general, the first need is for tranquillity, or at least the opportunity for periods of quiet and respite from all turmoils of mind and body. Prolonged excitement leads to exhaustion and even to a severe condition of nervous debility. Usually any social contact is followed by an unsettled sensation and profound fatigue. Since the sensory receptivity is so finely attuned, the witnessing of any harsh or bitter scene must bring about a mental-emotional upheaval which, though not always outwardly manifest, is none the less a severe strain on the nervous stamina of such a person. Some forms of behaviour which many people take for granted, are to her unendurable, for her perception is not only for the surface of things but for the undercurrents of thought, the dangerous shallows and shifting shadows of motive and instinct which lie beneath many seemingly orthodox words and actions.

Such constant intensity of perception is by many termed 'abnormal' or 'unhealthy' because it is not understood. And indeed it has no place in the utilitarian scheme of things. But in the highest forms of artistic expression such perception may be the means by which the ordinary is illumined and transfigured so that less gifted people are enabled to share, at least in part, the exalted sensory experience of the creator. Without being able to comprehend the process by which such experience is gained, the essence of the result may be enjoyed by thousands of those same persons who, if faced by the author of the work they so admire, might find no common ground of understanding.

The unusual qualities of the *hyper*-pituitary-thyroid type, as a rule, make her life a richly coloured mosaic of joy and sorrow; there are few neutral tones, but infinite complexities of shading and blending. Every hour contains some adventure of sensation; there can be no exclusion of minute externals which, whether purporting delight, grief or perplexity, must be critically sensed and considered.

Beyond the Bounds of 'Sanity'

It happens sometimes that the pituitary-thyroid circle of stimulation becomes so intense that the bodily mechanism is no

longer able to bear the strain, and then the mental state becomes confused. While still brilliant and capable of periods of remarkable lucidity and power, the mind is no longer able to maintain a judicial control over the sensation material. Expression is then eccentric to a marked degree. There may be a neurotic obsession with death, or an extraordinary magnifying of the most minute sensations, or strange delusions of persecution. Whatever the form of mental chaos, there are still always revealed the remnants of an intuitive, supersensitive mind.

There is, in fact, a constant danger lest subjects of this type overtax their physical resources. Nervously and mentally highly powered, the pressure of circumstances may cause their overstepping the bounds of what is known as sanity. Their normal expenditure of mental energy is almost always far in excess of the needs of the moment, for they have no means of controlling their emotional stresses. Often in times of universal grief or world-wide disaster, they are unable to tolerate any further their tragic thoughts, and end their lives to escape the burden of ineffectual sorrow. Suicides of this kind may be regarded by some as insane actions, the implication being that no sane person will wilfully seek death. Yet if any suicide may be considered as a sane form of behaviour, the hyper-pituitary-thyroid subject's self-destruction has a logical aspect. No person who conforms to the usual standards of thought and behaviour willingly seeks self-extinction, but the unusually gifted, the abnormally perceptive, sometimes regards death as the only remaining refuge from conditions which are intolerable to him. Even though the subject is far from the actual scenes of tragedy, and his reactions are entirely selfless, he is still often incapable of withstanding his knowledge of waste and disaster, and his consequent profound depression may force him to the conclusion that extinction is preferable to unremitting agony of mind.

Such persons are like the rarest and most delicate plants, affected by the smallest changes of emotional temperature, requiring always a carefully regulated environment—flowering richly under the right conditions, drooping and fading when they have not these proper circumstances—meriting the most careful attention, and rewarding such care by unique and astonishing feats which have little in them of normality, but much of exquisite, unanalysable abnormality—this abnormality being rather a supreme enhancement of all the natural qualities than any freakish manifestation of temperament.

CHAPTER VII

MIXED-SEX TYPES

(*Mixed-Sex Types:* those in whom the sex glands are underactive, overactive, or in a confused state of function, and whose consequent behaviour may be termed sexually abnormal.)

Whatsoever seemeth strange unto us and we understand not, we blame and condemn.

MONTAIGNE.

The Influence of Sex

THE gonadocentric (sex) type is one whose sex glands maintain an influence more powerful than that of any other endocrine factor over body and brain. Normal individuals in whom sex is a normal function cannot be termed 'sex types'. Only those in whom the glands are in a state of hyper, hypo or confused function make up the subject matter for this chapter.

In their powerful effects upon any human being the gonads cannot be ignored, for their action, whether strong or feeble, restricts or re-enforces other glandular activities. They may underline the adrenal type's masculinity, or the thyroid subject's femininity—or by their faulty working cause a departure from the basic sex. In every major and minor aspect of personality or character determination they play a leading part.

One medical scientist has stated that the gonads are the most sensitive members of the endocrine group, their sensitivity giving them the properties of graphs which indicate the condition of the whole glandular system. Almost every endocrine disorder affects the gonads, and while some of these disorders are scarcely perceptible on the surface (except to the scientific examiner) their reaction on the sex life of the individual is marked. Hyper-activity of pituitary or thyroid in the female makes for an increased sexual susceptibility, whereas hypo-activity of these same glands occasions a retarding or lowering of sexual tone. During such a hypo-active period the female is almost without sexual awareness or impulse. Hyper-activity of pituitary or adrenals in men has the opposite, accelerating effect, accentuating sexual aggressiveness.

Without question, a sexually dormant person possesses none

of the magnetic, attractive personality of one strongly endowed gonadally. All hyper-sexed types, whether basically adrenal or thyroid, exhibit colourful, vital personalities, sparkling or lustrous eyes, strongly marked or thick eyebrows, and well-muscled mouths which display a considerable portion of the red tissues. In many cases of long continued hyper-sexuality the upper eyelid droops, giving a sleepy expression to the eyes as a whole. This characteristic is especially noticeable in some thyroid types.

In hypo-sexed types the entire personality seems depleted, the 'living' tone lowered. The eyes lack brilliance, and both upper and lower eyelid muscles are poorly developed. The eyebrows are thin, and usually light in colour. The lips, whether thick or thin, are, like the eyelids, feebly muscled and loosely formed. In such subjects sexual life is practically dormant, and the entire character is accordingly affected.

The Social Aspect

The body's sex activity condition depends upon the normal, hyper- or hypo-functioning of the sex glands. However, many people, reluctant to consider the basic causes of sexual maladjustment, consequently impose a rigid censorship devoid of understanding on any behaviour which is socially regarded as 'excessive', 'perverted', or 'immoral'. Many unfortunates who are, from a physical point of view, sexually unlike their neighbours may, if denounced by public opinion, be condemned to lives of misery and social degradation. It is, of course, quite understandable that the person of hypo-functioning sex finds it easy to condemn the excesses of the sexually hyper-active, since it is beyond his comprehension that the body should induce such behaviour.

Condemnations of this kind are invariably based on ethical rulings which insist upon will power, self-discipline and abstemiousness, easily practised by the weakly sexed but presenting problems of incredible difficulty to the opposite type. The 'temptations of the flesh' are often held to be disgraceful and sinful by those who have never known such temptations. Only the medical psychologist is able to understand and give treatment for the difficulties which have hitherto appeared solvable only by the church and the law. Just as in past days the lunatic was imprisoned and harshly treated to rid him by penance of his 'evil', so even today the sexual 'wrongdoer' is often made an outcast whose redemption is presumably expected through a change of heart—a voluntary casting out of that which makes his behaviour sinful. It is to be hoped that in future years sexual abnormalities

will be treated as are other bodily troubles, impartially, scientifically, and without the blighting shadow of Mrs. Grundy over the proceedings. Admittedly this is a vast problem, since it involves a revision of many concepts of 'right' and 'wrong'. Many people would sensibly point out that if the body is to be blamed for all wrongdoing, the standards of right living are in danger, the very tenets of Christianity imperilled. Yet it cannot be denied that abnormalities of the body must produce abnormalities (or improprieties) of conduct for which the individual cannot be made altogether answerable. Therefore it would seem that adherence to the standards of right living may only be expected of the normal person, just as vigour and healthy achievement are to be expected only from a smoothly working, well-balanced body. It is useless and indeed impossible to impose an ethical programme upon a physically faulty or ill-adjusted human being. One may as well attempt to enforce a system of man-made regulations on the tides or variations of the winds. When, in all its workings, the body is understood rather than despised or mistrusted, there can be hope of success in the struggle against the evils that men do. It is recognized even now that enforced secrecy breeds wrongdoing, and that the aversion which many people feel against considering sexual problems is of no help to the misfits and miscreants whose behaviour occasions such uninspired activity in law courts and religious organizations.

In human beings there are many degrees of sex disturbance. In some this is shown only by small eccentricities and slight mannerisms which are scarcely perceptible to the casual observer. In others the sex reversion is so noticeable that it cannot be masked or ignored. Extreme cases of such abnormality are not particularly frequent, but the behaviour and appearance of such subjects is far from that which normal people regard as healthy or rational. That a man should behave like a woman, or a woman aggressively display all the aspects of masculinity seems to many both ludicrous and disgraceful. That such type reversions are entirely unable to conform to their prescribed manhood or womanhood is again regarded as incomprehensible. The ordinary community has no patience for or understanding of the female-men or the male-women who must then, for the most part, be misfits and outcasts; there is no place for them in the general run of civilized affairs. Their difficulties are many, their perplexities acute, and their attempts to live according to the communal ideas of 'right' and 'wrong' are often pitiful and frequently unavailing. Such human oddities are the victims of their bodies, of the grim joke played

on them by nature, or to be more specific, by their sex glands. And it is their double misfortune that, apparently healthy in that their bodies function without disease or discomfort, they are not at this stage of civilization's progress the general concern of the medical profession.

The Female-Male

In tracing the development of a typical female-male from infancy to maturity it will be seen that the sex reversion is gradual. The baby (a potential male) may be in every respect normal, with a normal physical and psychical development until the time when the secondary sex characteristics are expected to appear. At this stage the body refuses the symbols of incipient manhood, for the sexual organs remain childlike, the facial hair does not appear and the breasts take on a feminine contour. The voice retains its high pitch and there is a girlishness of expression at variance with that expected from a manly youth. Sensitiveness and shyness are evinced. During adolescence the more obvious feminine traits are intensified and with them a complete revulsion toward male pursuits. The entire character is now markedly female, the attitude towards women that of a woman, and the attitude towards men, that of one sex towards the other. There will be womanlike inclinations to titivate, to use cosmetics and scents, to dress colourfully in the most exaggerated style, to be punctilious to an ultra-fastidious degree in all matters of grooming. Walk, speech and gesture all betray this superimposed femininity. The extent to which such a subject realizes his differentness from other men must differ according to the quality of the mentality, and the glandular level on which the individual is found. But in most instances it happens that such a type instinctively seeks out others of his own peculiar kind and with these he forms a close bond of companionship.

The Male-Female

The corresponding mixed-sex type of woman, whose outstanding mature characteristics are male, has like her female-male counterpart, an abnormal adolescence, even though her childhood years have been those of a normal little girl. Although primarily endowed with all the physical aspects of femininity she does not become a developed woman, for at puberty her skin gradually coarsens, her voice deepens, a slight facial hair growth appears, and no female secondary sex characteristics occur. Her breasts remain like those of a youth and the genital hair configuration is

male. Her hands are usually large, with square-tipped fingers, the trunk heavily built and usually muscular, with potential masculine strength. In general her description tallies with that of the intermediate-level adrenal type described in Chapter III, although, of course, this does not imply that all women of this type-level are of mixed-sex. In personality and outlook she shows masculine mannerisms and propensities and all her fellow beings are regarded from an entirely masculine viewpoint. So far as men are concerned she is sexually unapproachable, for her attitude towards men is that of a fellow male. She avoids all feminine pleasures and enthusiasms; in any enforced feminine role she appears as awkward and as ill at ease as any normal man would in similar circumstances. So far as conventions will allow she rejects the frills and furbelows of the sex to which she has been estranged. She adopts masculine habits and ways of dressing. Her unwomenliness may well perplex and embarrass her family and friends who, while doubtless sympathetic towards those who suffer many bodily afflictions, cannot realize that this healthy male-female is, in a sense, as afflicted as one affected by any painless but deep-rooted bodily abnormality.

Sex Disguise

From time to time cases of extraordinary sex disguise, both of men and women, have come to light. There have been men who for the greater part of their lifetimes, have been socially accepted as women, and some women who have successfully masqueraded as male soldiers and adventurers. Many such secrets have been remarkably well kept until death revealed the true facts. That such sex-masking should be possible is not, however, particularly astonishing, for such subjects readily take on all the details of natural colouring and outward physical formation of the sex to which they have reverted. The basically male (female-male) has a feminine cast of feature and a light, delicately made bodily framework. His eyes will be large and well spaced, his forehead rounded and usually almost vertical, his mouth unmasculine, his hands slender with tapering fingers, or possibly fat with short, plump fingers. There will be no harshly angular lines or masculine characteristics in his physique, nor any identifiable male proclivities in his disposition. He is regarded as a male because that was his sex at birth, but since his body has taken on many womanly attributes he cannot behave as a man. Although neither truly man nor woman, he must obey his physical promptings, and these urge him towards the adoption of an entirely feminine personality.

Susceptibility to Environment

It is undoubtedly true that during the adolescence of any young person, the type of environment plays an important part in the shaping of his personality. The normal boy or girl, however, is far less susceptible to environmental influence than those who physically (and therefore mentally) are handicapped by some form of glandular maladjustment. It is common to hear of many instances of adolescent hero-worshipping, especially in schools where the sexes are rigidly segregated. There are those girls who single out for worship one of their women teachers, and carry this emotion to an extraordinary pitch, displaying fury and pique whenever the adored one shows some small attention to another pupil, or quite disproportionate gratitude when any favour is granted to herself. In boys' schools there are the same occurrences of idolatry. Friendships between schoolmates of the same sex often reach degrees of unnatural intensity; secret 'pacts' are made, with fervent avowals never to part or to marry. Whether such 'crushes' should be seriously discouraged depends entirely upon the state of the young person's body and mind. In any environment which fosters abnormal relationships a boy (or girl) of potential mixed-sex type must be biased towards that which should be as much as possible retarded; he has not the resistence which his normal colleagues possess, and the trend towards which his physical state influences him will be speedily accentuated. This happens frequently when a boy's home life is directed by a mother who regards her son as she might a fragile daughter, selfishly denying him the more full-blooded life of other boys, and jealously keeping him, in adolescent years, from normal companionship with other women. In mastering his every inclination she must accentuate any streak of femininity in his composition; if he is already a potential mixed-sex type she will have assisted the complete reversion. Later it is useless for her to chide him for his total inability to live the life of a normal man.

A young person's type of environment then, may be helpful towards the fulfilment of his natural personality if it is normal to begin with—or harmful in that it curtails his abilities or fosters his weaknesses. But environment alone will not make or mar his future character, for the basic physical and mental qualities can only be biased or developed, and never substituted for others. No matter what his environment, a person of potential mixed-sex type cannot altogether free himself from his abnormality. It is certain that by no force of will may he force the glandular processes within him into a state of normality. At best he can only

avoid, or be assisted in avoiding, that type of environment which stimulates his abnormality.

Causations of Sex Abnormality

In brief, the causation of sex disturbances may be explained as follows: In the male glandular system, the usual directorate is made up of the prepituitary-adrenal-cortex-testes alliance, and in the female, the postpituitary-thyroid-ovary combination. It is understandable that a strong *postpituitary* influence in a male will result in the diminishing of the testes' functioning. With the occurrence of this unusual strength of 'feminine' influence, a man, even if he were previously entirely masculine, must (depending upon the degree of postpituitary activity) lose much of his virility, physical strength and manliness, replacing these with a feminine physique-psyche. Should this disturbance be accelerated at puberty the sex reversion is inevitable.

In women a strong *prepituitary* influence likewise counteracts her dominating gland—the thyroid, and stimulates the adrenals which in turn retard the natural functions of the ovaries. Thus a typically feminine woman will gradually lose her femininity and her sexual approachability so far as men are concerned; she will develop a forceful, dominant and completely mannish disposition.

Disturbances in the endocrine chain, especially in the sphere of the pituitary, often bring about sexual abnormalities, sponsoring either an increase or a diminishing in sex activity from the normal. Such endocrine confusion always affects the entire composition of character.

Summary: Sex Type Variations

All the variations of unusual sex types cannot be considered here in any detail, but briefly they may be outlined as follows:

1. The complete hermaphrodite whom *Chamber's Twentieth-Century Dictionary* defines as an abnormal individual in whom are united the properties of both sexes. Such a subject possesses the physical organs of both sexes, although there can be no display of male and female traits at the same time. This kind of abnormality is very rare indeed.

2. The sexually impotent male who is without the male secondary sex characteristics and is, in fact, sexless, although tending in mannerism and mentality towards femininity. This subject is high-pitched in voice; his skin is soft or flabby and his nature particularly docile and passive. Usually he is unapproachable sexually by either sex.

3. The effeminate male who while possessing some superficial feminine characteristics is still unquestionably male.

4. The masculoid female upon whose basic femininity is superimposed some slight degree of masculinity.

5. The female-male who, while basically male, has none of the male secondary sex characteristics and who has partially or entirely reverted physically and psychically from male to female. (This type has been fully described earlier in the chapter.) In any homosexual alliance he is the submissive partner.

6. The male-female who, fundamentally female, has reverted in sex from female to male. (This type has been earlier described.) In any homosexual alliance she is the aggressive partner.

7. The male-female-male who, like No. 5 above, has shown a reversion to the female. Although possessing many markedly feminine characteristics and having no sexual interest in women, he is a sexually aggressive female-male, and in a homosexual partnership is the aggressive member, the complement to No. 5.

8. The female-male-female who like No. 6 is basically female but possesses a superficially imposed effeminate streak in the male-female propensities. In a homosexual partnership of two male-female types, this is the submissive member, the complement to No. 6 above.

Summing up sex types it may be stressed that both in appearance and behaviour such types are identifiable, the male being either hyper-sexed (in masculinity) *or* showing feminine tendencies, the female extremely susceptible sexually (in femininity) *or* masculoid in build and temperament.

Thymic Types

(Thymic types: those adolescents or adults whose physical and behaviour characteristics constantly reflect a marked juvenility owing to the persistent activity of the 'gland of childhood'.)

Juvenile

In many respects the thymocentric type resembles the gonadocentric, though the latter is the more easily distinguishable of the two. As has been mentioned in Chapter II, children of the thymic type are extremely delicate in constitution, even though they may appear to be perfectly healthy. They are usually unresistent to all childish sicknesses or ailments, some of which, though having no

serious effect on normal children, affect them disastrously and fatally. Their appearance has been properly described by Berman: "The angel child is the type: regularly proportioned and perfectly made, like a piece of sculpture, with delicately chiselled features, transparent skin, changing colour easily, long, silky hair, with an exceptional grace of movement and an alertness of mind. They seem the embodiment of beauty, but somehow unfit for the coarse conflicts of life."

A thymic type has a juvenile body, and in many respects a juvenile mind. Physique and psyche, while developing in size and proportion, never really mature; true adulthood is never achieved. Although full grown and showing no perceptible unusualness, a thymic youth or girl of eighteen has much in common with the child of twelve or fourteen.

The eyes of such children are usually large, yet not protruding, and set wide apart, i.e. with more than the length of an eye between the eyes. Throughout life the type finds great difficulty in acquiring any power of concentration either for visual or mental subjects.

The Immature Adult: Sex Abnormalities

At puberty when normal types develop secondary sex characteristics, the appearance of these is retarded in the thymic type. If they do appear their configuration is usually that of the opposite sex. Little if any hair grows on the face of the male, and the breasts do not attain full development in the female. Hips and waist usually follow the pattern of the opposite sex. The sex organs develop slowly but seldom attain full growth. Both in male and female the features are usually oval or rounded, the forehead being vertical or rounded and the mouth feminine in shape.

Their sexual awareness occurs slowly but surely, and many times this is directed towards members of the same sex. As was mentioned earlier, this type has some characteristics similar to those of other mixed-sex types. The chief difference is, however, that the thymic is able to conceal his sex abnormality from all but the most observant eye.

For adult thymic types are another kind of sex-type. They endeavour to maintain a normal, natural exterior, but are sometimes forced to succumb to the internal pressure which results in abnormal sexual behaviour. Many of these are discernible as thymic types only by slight juvenilities of manner or speech. In everyday life many of them succeed in appearing perfectly average human beings, yet while thus camouflaging in public, may give way in secret to their compulsions. Victims of their thymus,

they are extremely selective in their choice of mates, and liable to become perverts in the extremist sense.

The majority of thymic types follow in general structure the pattern of the normal, and for this reason they are the most difficult to identify. So far as these types are concerned, much research has yet to be completed, and this work is necessarily slow because of the comparative rarity of the type and the difficulties of obtaining data from those who are socially termed 'healthy'.

* * * * *

The subject of sex has been only briefly treated here because any comprehensive analysis of all sexual abnormalities would entail a volume of its own—and the purpose of this book is mainly to point out that deviations from the normal in physique are always followed by deviations from normality in character. The sex glands are only one group of factors concerned in the link between physique and personality.

CHAPTER VIII

TYPE OBSERVATION AND IDENTIFICATION

Contending Passions jostle and displace
And tilt and tourney mostly in the Face:
Unmatched by Art, upon this wondrous scroll
Portrayed are all the secrets of the Soul.

ABRAHAM COLES.

Pitfalls to Avoid

ONE of the minor vanities concerns the judgment of character. Many people profess to an instinctive recognition of their potential friends or enemies; they say that 'at a glance' they are able to form a shrewd idea of the personality of any newcomer to their business or social circle, and regard any refutation of this 'knack' as a serious belittling of their powers of observation and analysis. Yet it happens quite often that these same judges of character are forced to a drastic revision of their opinions when the subject in question fails to contain himself in his allotted pigeon-hole.

Admittedly it is no childishly simple matter to sum up a stranger's strengths and weaknesses of character only on the evidence of brief observation and a few moments of conversation with him. In arriving at accurate conclusions trained powers of perception are necessary—these being combined with a humble desire to understand human whims, moods, and behaviourisms—and a clear conception of the physique-personality link. It is useless to attempt deduction *only* on the basis of superficial expression and mannerism. Fundamentals must be mainly considered; all else is merely charming or unpleasing decoration of the character.

Theorizing has no point unless the theory may be put to some practical test, and an understanding of what constitutes character is useless unless its precepts are actively used and proven. Even when a clear picture of the various types is obtained, and the kind of behaviour to be expected from each is realized, there follows

the conclusive test: how may these be recognized quickly and accurately, regardless of their surroundings and the biasing effects of immediate circumstances?

Skill and accuracy of observation are far from commonplace. The registering of visual impressions is too often a haphazard and untidy process, and even when the observation is correct in its every detail it is not necessarily followed by a fair or logical deduction. The process may be likened to a jury's consideration of circumstantial evidence; only when clear evidence is combined with a judicious balancing of data may any worthwhile judgment be pronounced.

In the course of an ordinary day most people see innumerable objects and some variety of scene. In most instances the eyes regard these with superficial interest which quickens to absorption only when the details are arresting or dramatic.

When several witnesses of an accident are asked to outline the facts with precision, it often happens that no one account tallies with another, and it may very well be that none of the descriptions is wholly correct. Again, of a group of people who are asked to study a diagram with the object of describing it later from memory, only a very small percentage is able to fulfil the task in its entirely.

Prejudice of eye or mentality is the most detrimental factor in this matter of forming opinions about people. It is so easy to overlook an important detail, or to stress an irrelevant one, so easy to assume that the looked-for desirable qualities are there, or to be wilfully blinded to the undesirable characteristics. Impartiality of eye and viewpoint is rare, but without impartiality there can be no well-founded conclusions. If the observer wishes to understand the character of others, he must be careful to discipline his own personality so that he may not be influenced erroneously by his personal preferences and dislikes.

In the consideration of any object or scene, the whole and the parts must be weighed with equal care in both detailed and general scrutiny. The inaccuracy of first impressions is often due to the too swift summing-up, the eye having glimpsed only the general arrangement rather than the finer points of composition. Alternatively, to seize on a few details which are unimportant in themselves without due reference to the whole, is to arrive at an equally false conception of appearance or manner. The best judge of character is he who leaves his final decision until he has accumulated all possible evidence both of physique and behaviour.

A long nose, Napoleon proclaimed, was a feature which he appreciated in his leaders, as recommending astuteness and strength of purpose—yet this feature in itself could scarcely provide him with a reliable key to personality. No *one* characteristic of physique or disposition can serve as an infallible guide to the glandular basis of the individual. An analysis of any worth can only be made on the compilation and consideration of all the separate and intermingling traits.

It is at any rate certain that the face is to a great extent an index to character, for not only may the glandular influence be clearly recognized in the features, but also the biases of environment and education, the presence of directed or undisciplined mentality, emotional austerity or lack of control—all these trace their indelible outlines on the face.

The ability to describe the appearance of even a close friend is far from universal. Even when a sincere effort is made, the effect is usually vague: Oh . . . a round face . . . not fat of course, but *round*. Long nose—at least fairly long—blue eyes. . . ." This description has no individuality for it might apply to any number of people.

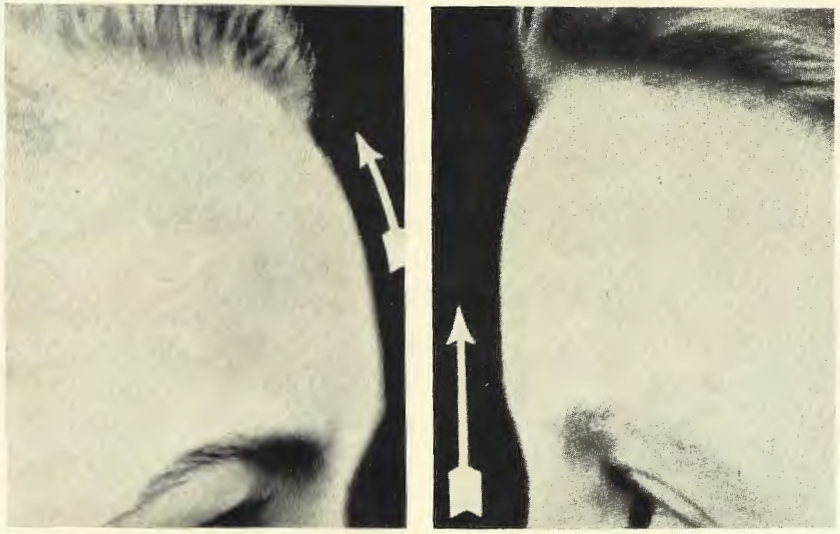
The recollections of acquaintances are even more indecisive. "A pleasant face . . . good natured, I'd say . . . and such nice eyes." Of this same person, another whose encounter was less enjoyable might remark: "A sulky-looking face, no life, dull . . ." in each case the impression having been made by the circumstances rather than an actual consideration of the person. Another account of a man: "Definitely not to be trusted . . . mean-looking eyes and an extraordinarily cruel mouth" may be entirely inaccurate, for the describer may have no true conception of eyes that are 'mean-looking' or a mouth that is 'cruel'.

Often the police, in their broadcast descriptions of a wanted or missing person, fail to give a really clear account of the individual's physique. Such an example might be: "Height about five feet eight inches. Bright complexion. Clean shaven. Sturdy build. Hazel eyes. Curly hair . . . etc.", this description being applicable to many a person whom well-intentioned searchers might regard with suspicion. The tendency to generalize and to judge appearance by transient details must result in a blurred or completely deceptive picture. A gullible observer might be so awed by a building's magnificent facade of glass and chromium that he fails to notice the faulty foundations, the thin walls, the inferiority and untrustworthiness of the whole framework. So far as people are concerned, it is perhaps even more easy to find one's judgment

Plate 29

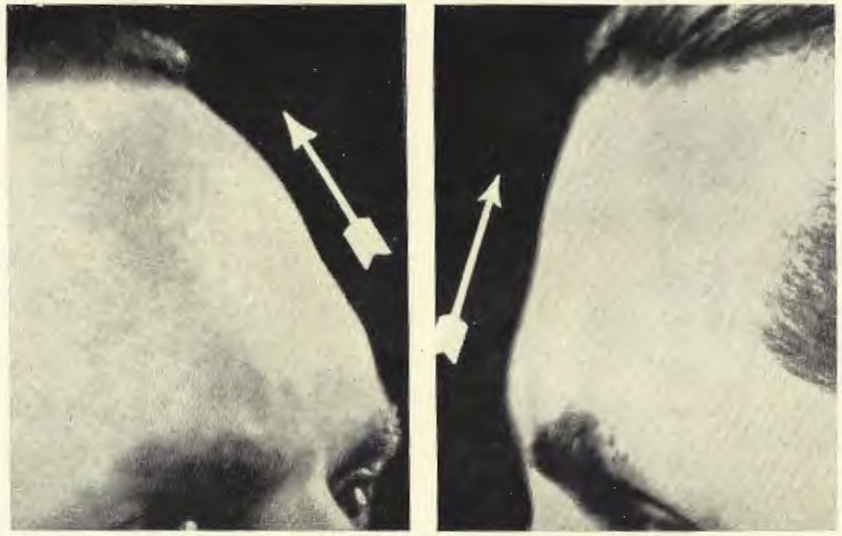
FOREHEADS: SENSORY COMPARED WITH MOTOR

A: SENSORY TYPES



ROUNDED VERTICAL

B: MOTOR TYPES

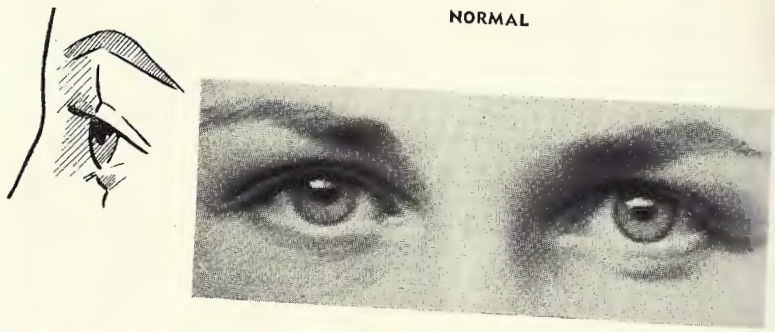


RECEDING SLIGHTLY RECEDING

Plate 32

EYES OF THE SENSORY TYPE: NORMAL AND ABNORMAL

NORMAL



EYES INDICATING HYPER-THYROID ACTIVITY

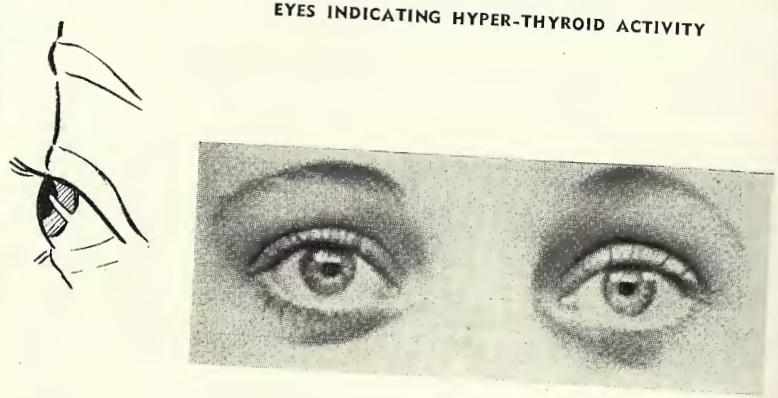


Plate 33

FULLNESS OR DROOPING OF THE UPPER "EYELID" AT ITS OUTER CORNER (Chapter 8)

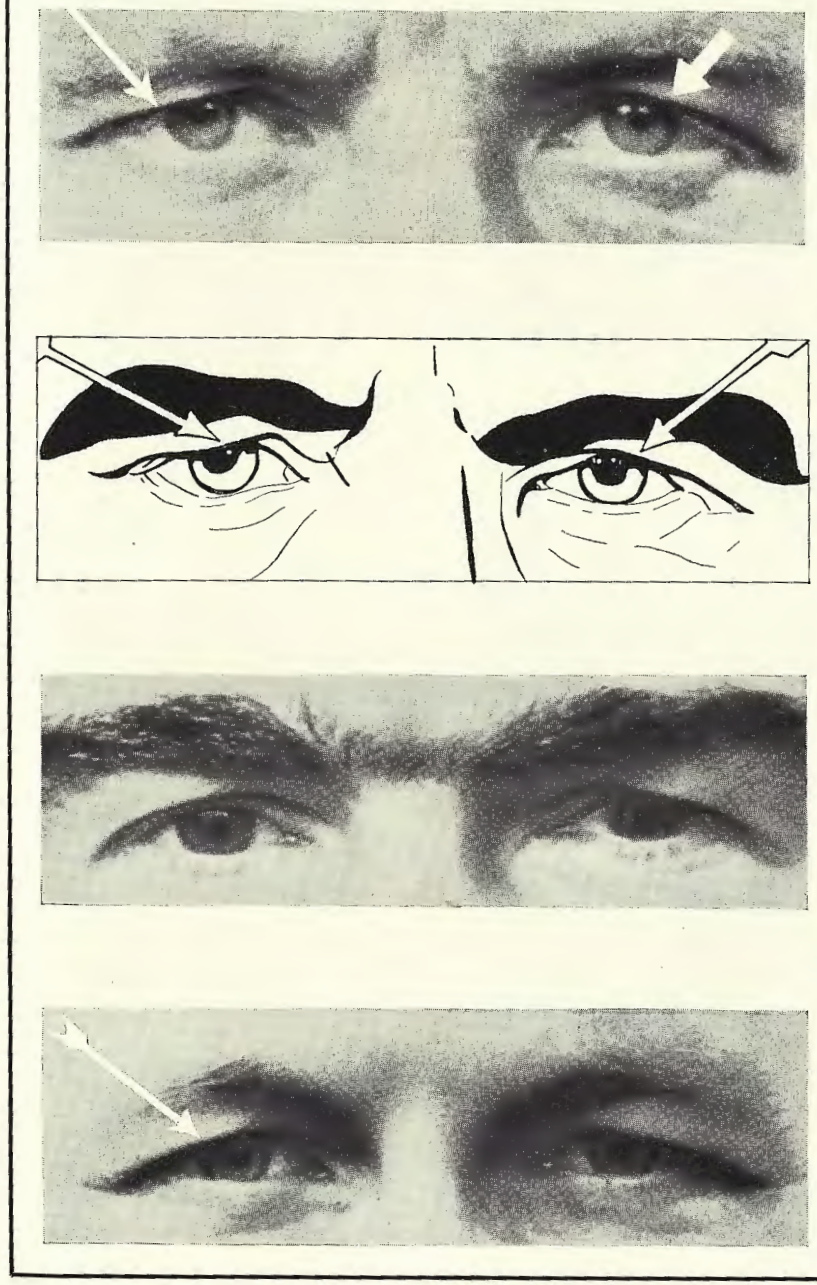


Plate 34

MOUTHS AND LIPS OF SENSORY TYPE (Chapter 8)

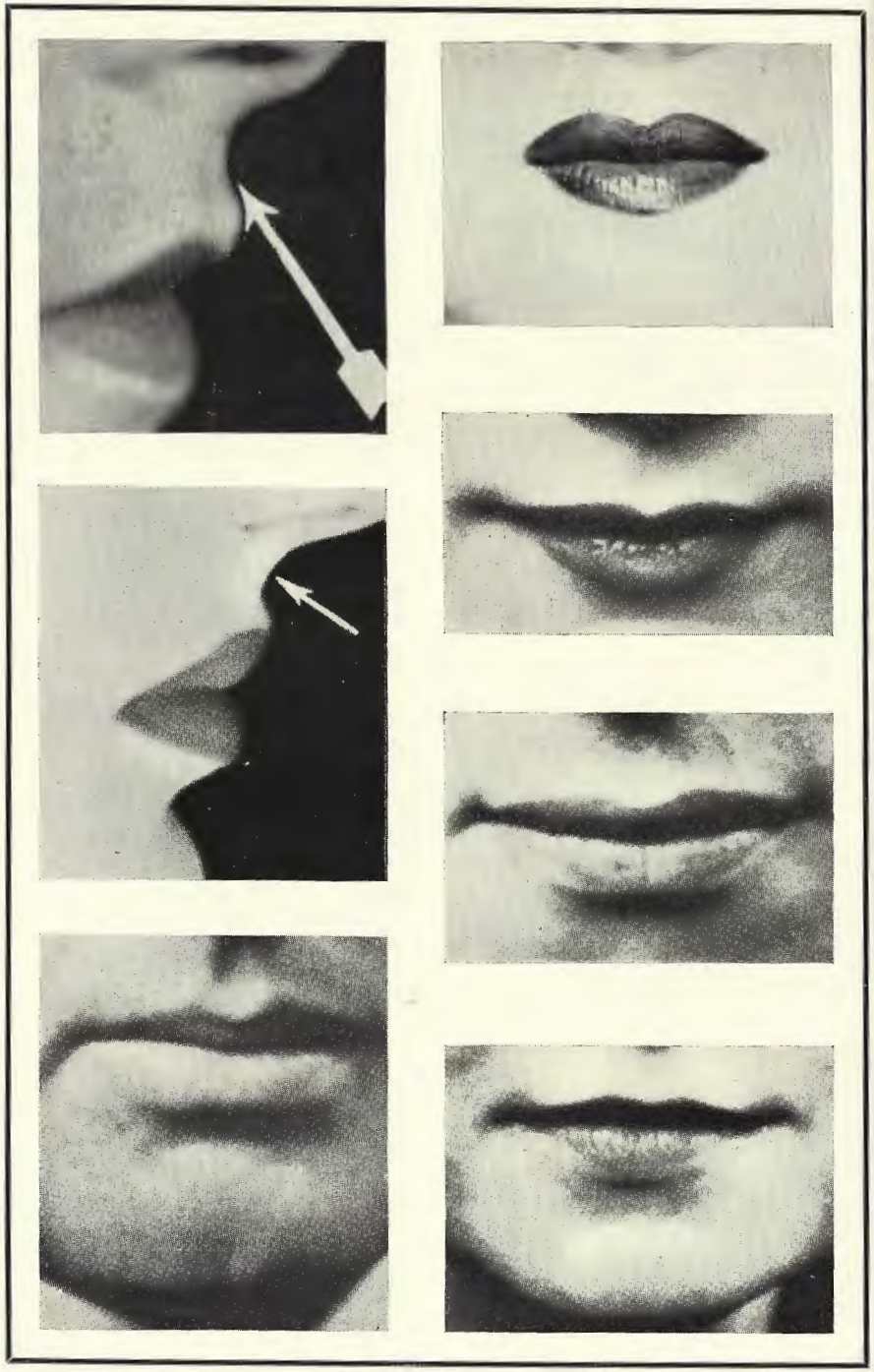


Plate 35

MOUTHS AND LIPS OF THE MOTOR TYPE (Chapter 8)

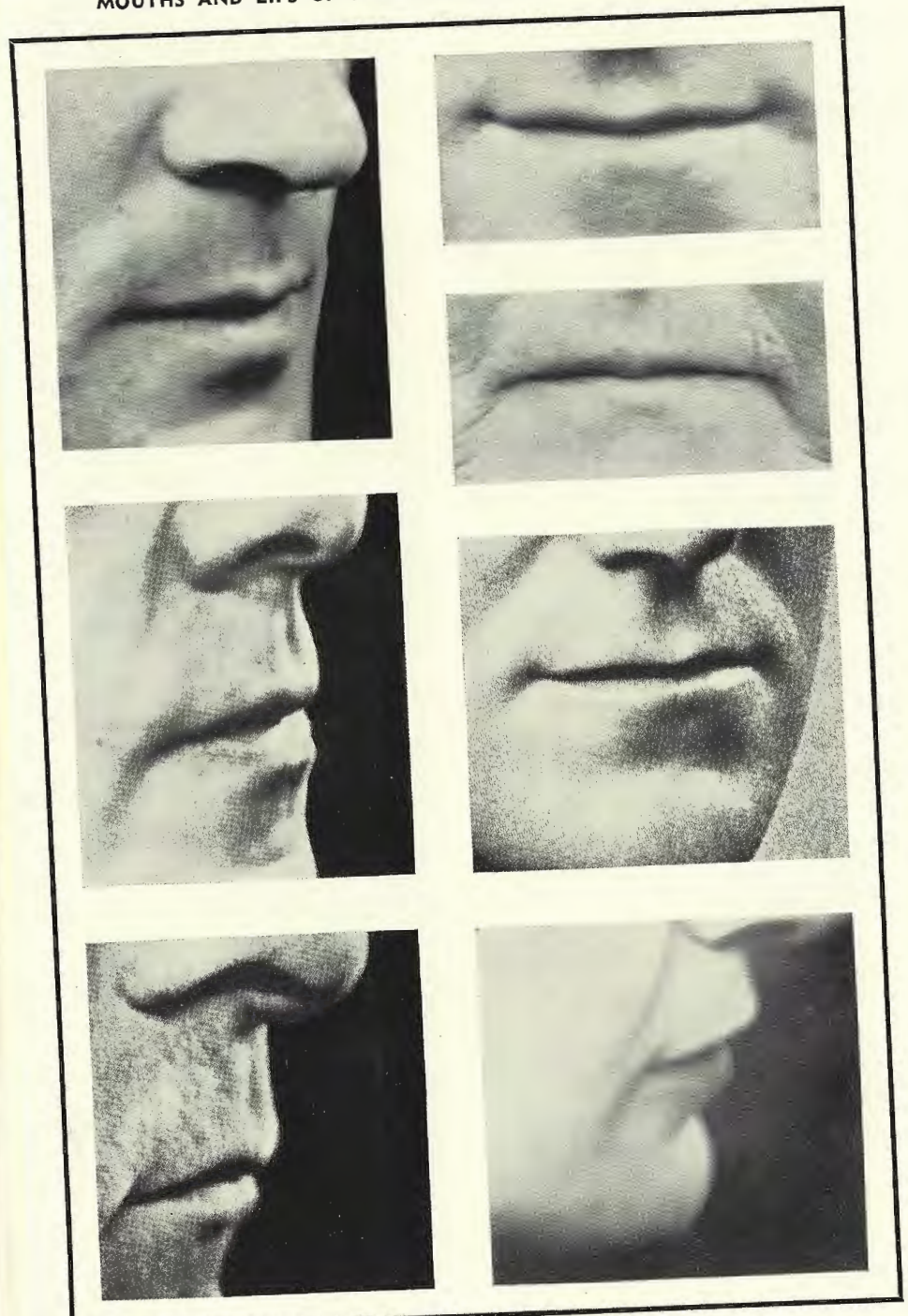
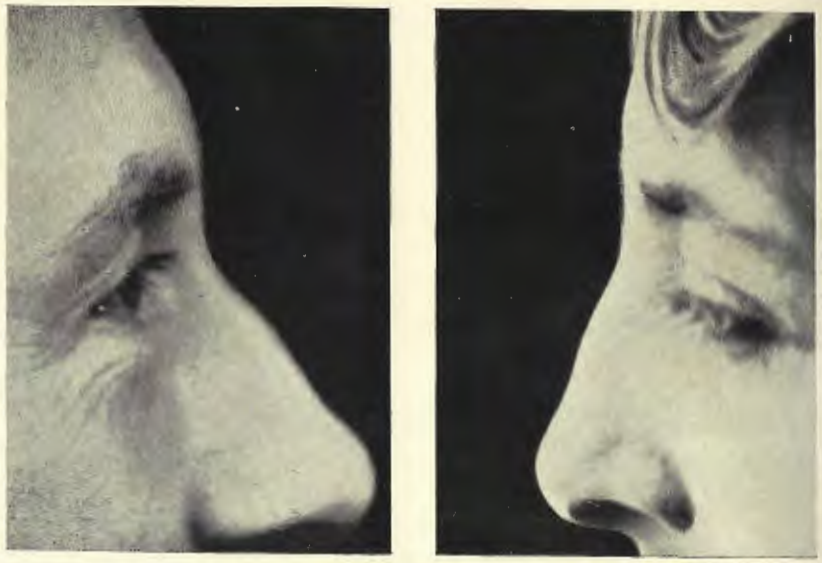


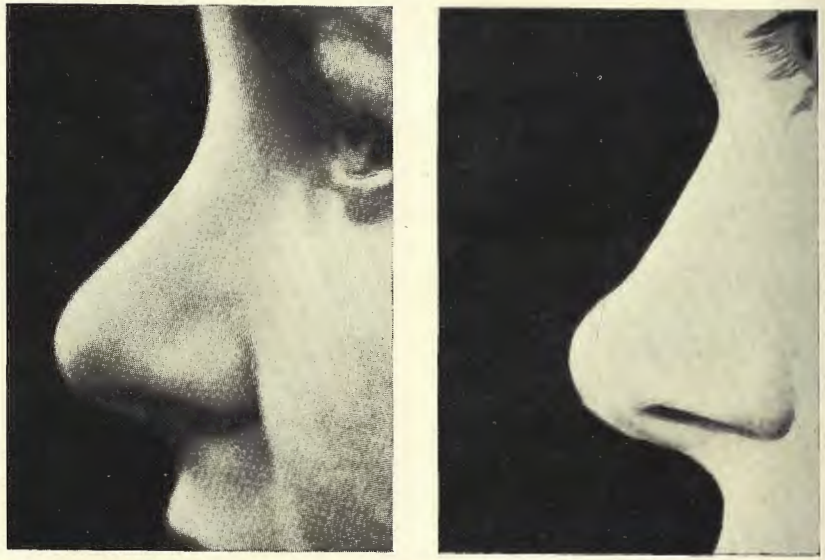
Plate 36

TWO BASICALLY MOTOR TYPES OF NOSES (A) COMPARED WITH TWO BASICALLY SENSORY TYPES (B)

A: CONVEX—OUTWARD CURVED



B: CONCAVE—INWARD CURVED



distorted favourably or unfavourably by a decorative or unassuming facial facade.

In observing faces there are many common errors to avoid. A 'straight' nose may not be truly straight, but of the convex (outward curved) variety. More careful observation might reveal the outward curve to be most pronounced in the centre of the ridge, between the eyes, or close to the nasal tip. 'Thin' lips might only be compressed at the moment of observation. A 'long' nose if considered in relation to the length of the face or forehead, may in fact be lacking proportionate length.

Fig. 37.

Fig. 38.

At the time of observation the face might not be at all normal in expression. The reflection of transient mental or emotional moods (even while indicative of some salient point of personality) should not be accorded too great importance. As in reading a series of words, the full context must be considered before the message is clearly interpreted. The omission of one detail or the exaggeration of another might throw the entire text out of its intended proportion. So it is with faces. All the features must be considered first as a whole, and then separately.[1] Each individual

[1]See Figs. 37 and 38.

characteristic, i.e. the curve of the nose; height, slope and breadth of the forehead; configuration of eye, mouth, etc., is in itself indicative of some endocrine influence and character trait. But in the comprehensive analysis of a person with an 'aggressive' nose, it is possible that no aggressiveness of character will be found, and a thin-lipped person may have none of the personality traits commonly associated with thin lips. Therefore it should again be stressed that only by observation both of separate and collective features may a true judgment be realized.

Physiognomical Details

A differentiation must be made between bone and muscle structure, fine and coarse hair growth, smooth and coarse skin. All the individual features must be compared with the rest in size, width and length. The forehead should be observed for height, width, slope, surface muscular development, skin texture, slight protuberances or depressions, and lines or wrinkles. The texture, colour, placing and formation of the eyebrows should be taken into account. The eyes should be noted for the following: colour, degree of brightness, position, proportioning, and shape and position of upper and lower eyelids in relation to the iris,—the nose for length, form, width of ridge, type of tip, nostrils and nostril flanges,—the mouth for width, size, and degree or compression, fullness and curvature,—and the chin for prominence, size, balance, bone, muscle or fat development and possible cleft or dimple.

The face should be studied both from front and side view, the general size and proportion of the entire head being first considered. Following this, each separate feature should be regarded and identified in connection with the others.

Such precautions are essential because of the departure in many cases from the true glandular type. Such men and women, subject to certain ratios of influence in the glandular chain, have a blending of various type characteristics, physical and psychical. In these mixed types the identification of the dominant glandular influence and subsequent basic personality must be worked out with especial care.

However, in true glandular types it is understood that certain features are invariably found in company. One distinctive shape of forehead, for instance, will be accompanied by a particular type of nose. An angular face will be made up of individual features natural to all angular faces, and those of the oval face will be common to most other oval faces.

That which makes one man different from another in facial appearance is not the general shape of his face, but rather the variations in the details of separate features. For instance, at a glance, all true thyroid types show a marked resemblance, but a further survey reveals the slight differences in height, breadth, width, etc., of the various facial components, and, of course, many small character divergences from the thyroid norm.

It may seem surprising at first glance that a man of intellect, sound reasoning faculty and excellent organizing ability differs so little in *general* facial appearance from another whose mental qualities are to an acknowledged extent inferior. A more careful comparison of the features of these two men might reveal that while the foreheads of both are very similar, the temples of the first subject: 'A', are full and rounded, whereas those of 'B' are flat or slightly sunken. 'A' may have a more widely ridged nose, even though the ridge of each has the same convex pattern.

Comparison: Motor and Sensory Features

Difference in the shape (not size) of skull, and especially of the forehead, means difference in shape of brain, which in turn broadly indicates the extent of the mental processes. The top-frontal cerebral portion contains the 'grey matter', cells and nerves which have to do with thinking and reasoning, while the lower-frontal part contains the cells and neurones controlling the motor processes throughout the whole body. The top-frontal section of the brain receives the various sense-impulse communications while the lower-frontal section is concerned with the direction of the body's general motor activities.

To illustrate simply: A harsh, vibrating sound is conveyed via the ear nerves to the sensory part of the brain where the impulse is deliberated upon and weighed with a view to possible action from some other part of the body. If the occasion demands bodily defence or flight, such an impulse is instantly conveyed to the brain's motor section which, in turn, stimulates a series of swift, co-ordinated movements throughout the body. When no action is necessary the impulse ceases before being transmitted to the motor section. A *sloping* forehead, with its lower frontal part prominent, suggests that the brain and body *motor* directorate is well developed in comparison with the sensory. A *vertical* forehead indicates a predominance of *sensory* rather than motor brain activity.[1]

The size of the head, and consequently the brain, is no

[1]See Plate 29.

criterion in determining the brain capacity in terms of thinking, reasoning and motor power. A head and brain of small dimensions may be the basis for a far more efficient mind than that developing from a larger combination. The important points are the health and shape of cellular construction. An idiot's skull is in many cases far too large, and the head of a mental wizard may be very small in comparison with the whole physical proportion.

The mouth has been termed the 'battleground of the face'. This feature clearly indicates the dominance of either motor or sensory brain influence; it betrays the mastership of emotion or the dictatorship of unemotional 'mind'. Until the end of adolescence it is quite natural for the lips to be full, showing much of the red tissues, and for them to lack any firmness of closure. According to the degree of brain motor-influence, the mouth muscles may develop so that even when the lips are relaxed the red tissues (especially of the upper lip) are compressed and hidden —hence the classifications 'medium-thin' or 'thin' lips. When, after adolescence the sensory element is dominant in the physique and personality spheres, the motor part of the brain does not greatly develop; the lips are not exercised in compression, and maintain their juvenile fullness. It follows that the person in whom firmness of attitude and disposition is frequently displayed, will in the course of time develop a compressed, firmly moulded mouth—and that the subject who vacillates in decisions and whose nature lacks sensory discipline will show no such development or compression of the lips.

Thus at least one aspect of character—the presence of sensory or motor control—is evident from the mouth formation.

While after the age of twenty-one the bone formation of the head and face can alter very little, the surface fat and muscle may undergo many changes. The facial capacity for expressiveness is due to the complexity and number of surface muscles of which there are more than one hundred, most of these contracting or relaxing in response to thought or mood. Mental concentration on visual objects is accompanied by a lowering and tensing of the brow, and a contraction of eye and mouth muscles. The expression of a man who attempts the threading of a fine needle provides the perfect illustration.

Motor control tenses the muscles; the sway of emotion tends to relax them. For instance, with the experience of sorrow the entire facial expression is slack; the mouth loses its firmness, the lips falling apart loosely; the eye muscles droop about the eyeball

and the forehead muscles lift, especially over the brows. The entire facial aspect is sagging, downward drooping.

In the study of facial formation and expression, allowance must sometimes be made for physical defects—inherent or resulting from disease or accident. It is possible for missing teeth or badly fitting false ones to alter the natural mouth formation, or for a broken nose to appear concave rather than convex as originally. However, if these defects are recognized as such, there will be no likelihood of error in the final assessment.

Behaviour—Personality

Distinctions Between Closely Similar Temperaments

Having assessed the physical facts, further accuracy of observation is necessary in making a rough conclusion as to the accompanying behaviour and personality of the subject. In this regard there is need for especial care and discretion. Spasmodic behaviourisms are not necessarily indicative of the basic personality. And there are, of course, moods and traits of infinite variety which can scarcely be encompassed with any brief phrases of description. The quality of 'determination' is sometimes puzzling for it may be demonstrated in at least two ways. There is a certain kind of resolution or steadfastness which is manifest with dignity and tact. This cannot be linked with another variety of determination: an impetuous or mulish persistence or obstinacy which more often arises from antagonism than from any wish to uphold a principle. The former is often a basic characteristic of the pituitary-adrenal type, whereas the latter may be found in varying degrees in the lower adrenal type levels.

There is too, a great difference between the chronic irritability found as a basic trait in certain adrenal-deficient types on various levels, and the temporary irritability which the majority of people exhibit when they are overworked, poorly fed, lacking sleep or suffering from some prolonged nervous tension. Even this latter superficial variety might be subdivided—since it has different manifestations in thyroid and adrenal types. In the former, its quality is rarely that of physical excitement; often it is marked neither by words nor by any especial gestures or mannerisms; its nature is passive but quite apparent because its restraint occasions a dullness, a clouding over of the usual good nature of the type. In some, however, it may be shown in a pettish, nervy, super-

sensitive tone of voice or manner. In the adrenal type it evokes a loudness and sharpness of voice, a tendency towards angry explosions over trifles, an exaggeration of small discomforts which are normally disregarded—a pugnacity which deliberately seeks expression.

There are, too, the differences between healthy and morbid emotions, between the expressions of tears, laughter, exhilaration, anger, fear, sexual reaction—and all such responses which result from normal stimuli—and those of morbid depression, hysteria, fanaticism, frenzied rage, abject terror and sexual excess or perversion.

It is only in very rare cases that the subject, during his entire lifetime, fails to stray occasionally out of his type category. But since such phases occur only under the most extreme circumstances they cannot be regarded as natural to the personality.

Mentality-Expression Differences

The differences of range in the sphere of mentality-expression must again be given a clear demarcation—for instance that of mental shrewdness compared with restrictive caution, of visual concentration with mental application to nonvisual subjects, of pictorial speech with mere vocal talkativeness. It is possible for some people to be misled in this matter of conversational merit. They do not realize that a few words, carefully chosen and balanced, spoken quietly and without deviation from the topic, have more intrinsic value than a spate of talk, poorly co-ordinated and emphasized by loudness of voice and agitation of movement. Of the first speaker it may be deduced that his mentality is of a good quality, well disciplined, and the product of a well-balanced body and brain. Of the second, it may equally be concluded that the mentality is of the rag-bag variety, filled with snippets and oddments of knowledge, ill-assorted but displayed with a grandiose, exhibitionist effect which may dazzle the listener into the belief that he is hearing words of great wisdom.

The final difference between the two is that the first has neither the wish nor the need to prove his powers of thought to anyone, whereas the second must mount his soap-box and use every physical trick of voice and gesture to enhance the poverty of his learning.

Erratic Behaviourisms

There are small oddities of human behaviour, quixotic habits,

which must be studied and understood before any serious attempt is made to apply any type-grading 'label'. The minor inconsistencies of human behaviour are everlasting riddles to any student of human nature. Why, for instance, should a man who regards his cat with affection, his dog with devotion and many individual animals and birds with consideration, then enjoy shooting and trapping a variety of creatures wholesale, on expeditions which he organizes for this especial purpose? Why should a man who is notorious for his cold-blooded commercial methods, his unfeeling treatment of his workers, his immovability in the face of human sorrow, then show an entirely unexpected emotion at the sound of waltz music, or a sudden warm benevolence towards a taxi-driver or cloak-room attendant?

Then there is the scrupulously tidy, systematic chief clerk whose dragon-like insistence on efficient office management causes his subordinates much anxiety, whose filing cabinets are miracles of neat cataloguing, and whose business routine is a meticulously regulated mechanism. Dapper in dress, punctilious in speech, he sets his colleagues an example of sober perfection. Yet, by his own hearth-side he throws the pages of his newspaper untidily aside, cares little for his appearance, is unpunctual at meal times, and altogether shows himself a different man from the one who briskly drills and marshals his office staff.

Therefore it must be kept in mind when assessing temperament, that many qualities cannot be exactly defined, and that there are likely to be minor contradictory elements in even the most seemingly unified character. The biases of education, temporary or permanent environmental circumstance, of living and working conditions, social circle, economic state—and a variety of other 'pulls' must be taken into account. Yet first of all, and most important in the attempt to estimate character, the physique must be fully considered, the effects of external conditions being regarded only in relation to the subject's particular needs and potentialities.

With the information provided earlier, the following list of physical characteristics, while in no way comprehensive, should be helpful in assisting the reader to identify the majority of main types. The emphasis has necessarily been on the facial features—these, with the hands, being clearly representative of the physique as a whole, and always observable. "A cat may look at a king," and all men are happily free to regard one another. But 'looking' in itself has little purpose. An honest attempt at valuation and understanding, has.

FACIAL CHARACTERISTICS AND TYPE ASSOCIATION:

FEATURE	DESCRIPTION	TYPE ASSOCIATION
	FOREHEAD (*viewed full-face*)	
Brows.	The lowest frontal extremity of the forehead.	
Hairline.	The lowest normal extremity of hair growth on upper forehead.	
Low.	In proportion to the length of nose and length of face in general, it lacks height.	Lower adrenal or thyroid types.
High.	In comparison with length of nose and face in general, its height is marked.	Pituitary.
Rounded in width.	From temple to temple, its lines are rounded rather than straight.	Thyroid.
Square.	There is a noticeable absence of rounded contour in any direction. From temple to temple it has appearance of 'squareness'.	Adrenal.
Wide crown.	Forehead is wider across the top than across the brows.	Pituitary-thyroid.
Wide base.	Forehead is wider across the brows than across the crown.	Intermediate-adrenal.
Full temples.	These are not flat, or sunken, but have a noticeable fullness or even a slight protuberence.	Pituitary.
Sunken temples.	There is a definite sunken appearance, compared with the rest of the forehead.	Intermediate or lower-level thyroid or adrenal.
Vertical.	(*Viewed in profile.*) From the brows to normal hairline the forehead neither recedes nor protrudes.	Thyroid (any level).
Protruding.	The top of forehead, just below hairline protrudes beyond an imaginary vertical line extending from brows to normal hairline.	Intermediate or lower-level thyroid. Found on many sub-thyroids.
Receding.	From brows to normal hairline the forehead slopes back, slightly or abruptly.	Adrenal on any level.

FEATURE	DESCRIPTION	TYPE ASSOCIATION
Rounded.	From brows to normal hairline the forehead's contours are slightly rounded.	Thyroid or mixed types.
	EYES	
Protruding	Have a 'popping' appearance. The white of the eyeball shows above and below the iris.	Hyper-thyroids.
Prominent.	These are large and 'full', the white of eyeball showing beneath the iris.	Hyper, intermediate or higher-level thyroids.
Medium-deep set.	The upper eyelid covers a portion of the iris and the lower lid barely touches the lower edge of iris.	Thyroid, adrenal or pituitary.
Deep-set or narrow.	The upper and lower lids cover a portion of the iris. Viewed in profile, the eyeball is noticeably sunken beneath the brows.	Adrenal.
Small and close together.	These are noticeably smaller than normal, and are set too close to the nose juncture for true proportioning with the rest of the features.	Lower-level adrenal or thyroid.
Large and widely spaced.	Between these eyes there is approximately the length of an eye and a half. (The normal space between the eyes is the length of an eye.	Hyper-thyroid. Many times found in thymic types.
Oblique or slanting.	The outer corner of each eye slants upward away from the nose.	Adrenal and mixed types. (Certain glandular deficiencies during formative periods.
Turned-down corners.	The outer corner of each eye slants or droops downward away from the nose.	Intermediate level or pituitary-adrenal.
Iris.	The blue, brown or hazel portion of eyeball.	
Pupil.	The small 'black' circle in the iris's centre.	
Drooping upper eyelid.	The upper eyelid droops to cover about one-third of the pupil, the eyeball white showing slightly beneath the iris. The effect of this is a sleepy expression.	Thyroid types mostly.
	MOUTH	
Well-proportioned.	This is neither markedly wide nor narrow in comparison with the other features. The lips are evenly moulded.	Intermediate or higher-level adrenal or thyroid.

FEATURE	DESCRIPTION	TYPE ASSOCIATION
Large.	Noticeably wide in comparison with the other features.	No particular type association.
Small.	Disproportionately small in comparison with the other features.	No particular type association.
Corners up.	The outer corners of the mouth are turned up, the effect being of smiling even when the rest of the face is unmoved.	No particular type association.
Firm.	The lips rest closely and firmly together.	Adrenal mostly.
Loose.	The lips in normal repose remain separated, usually showing the teeth.	Thyroid. (Sometimes in thymic types.)
	LIPS	
White part.	That part of face between nose and red portion of upper lip.	
Full.	Both top and lower lips showing a noticeable 'full' portion of the red tissues.	Thyroid.
Medium-full.	The lower lip is full, the upper lip more compressed and revealing less red tissue than the upper.	Pituitary, or adrenal.
Thin.	Both upper and lower lips show little of the red tissue. The effect is of tight compression.	Adrenal.
Protruding upper.	Upper lip extends noticeably outward and beyond the lower lip.	Thyroid (usually hyper) and thymic.
Protruding lower.	The lower lip extends noticeably outward and beyond the upper lip.	Adrenal. (Usually caused by pituitary malfunction during formative period.)
Thick and coarse.	The mouth is ill-shaped, with an uneven closure line. Lips coarse in texture, and thick.	Usually lower level types, although sometimes found on higher levels. (Malfunction of thyroid and pituitary during formative period.)

FEATURE	DESCRIPTION	TYPE ASSOCIATION
	NOSE (*viewed in profile*)	
Straight.	The ridge is straight throughout its length.	Pituitary-thyroid.
Concave.	The ridge is inward curved throughout its length.	Thyroid.
Convex.	The ridge has an outward curve which may extend its full length, or show a slight protuberance at some point.	Adrenal.
Tip-tilted.	The end, or tip, turns up.	Adrenal or thyroid.
High bridge.	The ridge has unusual height between the eyes or at the brow juncture.	Adrenal and pituitary-adrenal.
Short concave, 'pug' or 'snub'.	Extremely small and short in comparison with the rest of the features.	Thyroid.
Elongated tip.	The nasal tip, not necessarily upturned, extends beyond the normal position of tip.	Usually pituitary-thyroid.
	NOSE (*viewed full-face*)	
Wide-ridged.	The ridge is marked in breadth along its entire length.	Pituitary.
Sharp or narrow-ridged.	Ridge narrow and sharp along its entire length.	Adrenal. (Intermediate or lower-level.)
Bulbous tip.	The nasal tip or end is noticeably larger and more fleshy than the rest of the ridge.	Pituitary.
Nostril.	The nasal aperture.	
Thick flange	The outer fleshy nostril covering is thick and coarse.	Lower-level types.
Thin flange.	Noticeably thin and delicate outer nostril covering.	Hyper-thyroid.
	CHIN (*viewed in profile*)	
Balanced.	The chin extremity rests on an imaginary vertical line touching the outer edges of lips and brow.	Thyroid and adrenal.
Protruding.	Point of chin extends beyond an imaginary vertical line touching lips and brows.	Adrenal. (Hyperfunction of pituitary during formative period.)

FEATURE	DESCRIPTION	TYPE ASSOCIATION
Receding.	Point of chin recedes within an imaginary vertical line touching lips and brow.	Thyroid or adrenal. (Hypofunction of pituitary during formative period.)
	CHIN (*viewed full-face*)	
Square and/or bony.	This shows a pronounced squareness and ruggedness.	Lower level or 'athletic' intermediate level adrenals.
Semi-oval, muscular.	This has some ovalness of shape and is more muscular than bony or fat.	Intermediate adrenal or pituitary-adrenal.
Oval.	Unmistakably oval, and more fat than muscular or bony.	Thyroid. (Intermediate or pituitary levels.)
Rounded.	Made up of round lines. Noticeably plump.	Lower level thyroid and subthyroid types.
Pointed.	The chin tapers to a 'point'. Only slight muscle and fat development.	Usually found on female adrenal types, occasionally on some basically hyper-thyroid.
	JAW	
Square.	The angle from ear to point of chin has a marked squareness.	Adrenal.
Rounded.	The jaw-line follows an oval or rounded contour from ear to chin.	Adrenal or thyroid.
'Weak'.	The jaw-bone is poorly formed with a sunken appearance, the line uneven from ear to chin. This feature usually accompanies a receding chin.	Thyroid or adrenal. (Hypofunction of pituitary during formative years.)
	NECK	
Well-defined nape line.	The line from top of head to neck follows a continuous half-circle, showing a clear line of demarcation between head and neck.	Intermediate and higher type levels. (Thyroid or adrenal.)

FEATURE	DESCRIPTION	TYPE ASSOCIATION
Long.		Usually thyroid-pituitary although seen on some pituitary adrenal types.
Short.		Usually on lower level thyroid or adrenal types, but occasionally found on higher levels.
Stocky.	Neck is broad and deep, giving an illusory appearance of shortness. The back of head and neck usually lacks clarity of nape line.	'Athletic' thyroid, and intermediate or pituitary adrenals.
	EYEBROWS	
Coarse hairs.	These are bristly in appearance and confused in formation.	Adrenal. (Or subthyroid.)
Fine hairs.	Normally light in colour, with a silky texture.	Thyroid or hyper-thyroid.
Heavy.	Coarse or fine in texture, but very thick, and usually dark in colour.	Adrenal.
Thin.	Whether long or short-haired, these are usually faintly marked and light in colour.	Thyroid.
High.	Set high on the brow—the hairline usually oval in formation. Always found on the vertical or protruding forehead.	Intermediate or lower level thyroid types.
Low.	Formed on lowest extremity of the brow. Usually seen in conjunction with a receding forehead.	Intermediate or higher adrenal levels. Also pituitary-thyroid.
Eye wrinkles.	Two or more wrinkles extending outwards from outer corners of the eyes.	Adrenal or thyroid. Usually associated with an equable, good-humoured personality.
Vertical line between the eyebrows.	This is usually one-half to one inch long.	Adrenal. Usually caused by visual concentration.

FEATURE	DESCRIPTION	TYPE ASSOCIATION
Forehead wrinkles (straight).	Two or more horizontal wrinkles extending in broken or unbroken lines across the forehead.	Pituitary-adrenal or pituitary-thyroid.
Forehead wrinkles (confused).	Horizontal wrinkles, short and slightly oval, extending across the forehead, and following no particular contour.	Intermediate or lower level thyroid.
Lower eyelid muscle formation with line extending under eye.	Noticeable fullness of muscle immediately under and touching lower eyelid. A line is formed directly beneath this muscle formation.	Intermediate or higher level adrenal or thyroid types.
Brow muscle formation.	Noticeable muscle protrusion either along the entire brows or immediately over each brow.	Intermediate or higher level adrenals.
Top-forehead muscle formation.	The top-centre of forehead exhibits a noticeable muscle protrusion or development. This is usually one-half to three-quarters of an inch in height, and one to two inches in width.	Higher level (pituitary) adrenal and thyroid types.
Inner cheek line 1.	Extending from flange of nostril to corner of mouth.	Certain intermediate or higher level thyroid types.
Inner cheek line 2.	Extending from nostril flange to a point about half to three-quarters of an inch from the outer corner of the mouth.	Normal position of the line on any intermediate or higher type level.
Inner cheek line 3.	Extending from nostril flange to a point three-quarters of an inch to an inch and a half from the outer corner of the mouth.	Usually on lower level adrenals.
Same line as No. 2 (above).	—but extending at least three-quarters of an inch *below* the outer corner of the mouth.	Higher level (pituitary) adrenals.
Cleft in chin.		Intermediate or higher level adrenals.
Dimple in chin.		Usually thyroid; but occasionally found on higher level adrenal types.

FEATURE	DESCRIPTION	TYPE ASSOCIATION
Dimple at corner of mouth.		Intermediate or higher level thyroid types.
Dimple in cheek.	Not to be confused with 'line in cheek' as described below.	Thyroid types.
Line in cheek.	Short line, length about three-quarters of an inch to an inch, vertically placed just outside of 'inner cheek line' as described above.	Usually found on intermediate level adrenal types.
	VARIOUS FEATURES	
Soft or silky head hair.	Usually light in colour.	Thyroid, hyper-thyroid and thymic.
Coarse, dry or brittle head hair.		Adrenal (especially in hyper-adrenal state, or thyroid in sub-thyroid state).
Broad, round face.		Thyroid, usually in hypo-thyroid state.
Thin, drawn, oval face.	In normal condition this would be of the full oval type—more fleshy than muscular or bony.	Thyroid type in hyper-thyroid state.
Thin, drawn, angular face.	In normal condition this would be of the angular, clear-cut type.	Adrenal type in hypo-adrenal state.
Quickly blushing complexion.	The face or neck flushes easily during conversational excitement or any rise of temperature.	Usually thyroid type in slightly hyper-thyroid state, or with slight thymic persistence.
Low hairline, usually associated with narrow crown and broad brows.		A common characterestic of lower level adrenal types, although it should not be confused with that of higher level types whose background is Eurasian or Balkan.

FEATURE	DESCRIPTION	TYPE ASSOCIATION
Scant adult facial hair growth. (Male.)		Thyroid or adrenal in hypo-sexed state.
Noticeable scattered facial hair growth. (Female.)		Usually adrenal type of woman in hypo-sexed state.
Abundant, thick hair growth, usually dark, in men.		Adrenal types in hyper-adrenal and/or hyper-sexed state.
Coarse, heavily boned features.	Of jaw, chin, cheek-bones and nasal ridge.	Usually adrenal types, showing hyper-pituitary influence in formative years, or recurrence of pituitary growth influence in an adult.
Noticeably long, thick eyelashes.		Thyroid types mostly, indicating some thymic persistence
Prominent or slightly protruding and irregularly spaced upper teeth.		Found almost without exception in thyroid types, and indicating a basic hyper-thyroid state and thymic persistence
Long slender fingers.		Higher level adrenal or thyroid types.
Well-shaped, 'square' hands with square or blunt-tipped fingers.		Intermediate level adrenal types.

FEATURE	DESCRIPTION	TYPE ASSOCIATION
Rounded fingers of average length and size on well-proportioned, usually small, hands.	Absence of marked bony development or prominent knuckles.	Thyroid types on intermediate levels.
Short fingers.	Characteristic of fat or 'podgy' hands.	Lower level thyroid types.
Large bony hands with prominently knuckled fingers.		Lower level adrenal types.
Dry and/or coarse skin.		An indication of hypo-thyroid activity in thyroid types and hyper adrenalism in adrenal types.
Thin, soft, clear skin.		Thyroid types, usually indicating hyper-thyroid condition and/or slight thymic persistence.
Dark, 'pasty' or sallow skin.	Not to be confused with sun-tanned skin.	Adrenal types mostly — indicating a hypo-adrenal condition.
'Square,' 'masculine' bodily build in women.		Adrenal types with basic hypo-ovary state.
Curved contours and 'feminine' bodily build in men.		Thyroid types with basic hypo-testes state.

Behaviour and its Background

The following brief list indicates some character traits in relation to their physical background. This list is necessarily incomplete, but provides a partial picture of the link between some mental and emotional states and organic function.

Trait	*Usual Cause (Direct or Indirect)*
Anxiety	Hypo-thyroidism or hypo-adrenalism. Chronic gastritis.
Depression	Same as above.
Unstable emotions ..	Hyper-thyroidism or hyper-function of the sex glands. Also sometimes caused by alcoholism and mental strain.
Restlessness	Same as above.
Irritability	Hyper-thyroidism, hypo-adrenalism or hyper-function of the sex glands.
Shyness	Hypo-function of sex glands or hypo-thyroidism.
Marked sensitivity ..	Hyper-thyroidism.
Hyper-acuity of sense perception ..	Hyper-thyroidism or hyper-function of sex glands.
Poor memory ..	Hypo-thyroidism.
Strong imagination ..	Hyper-thyroidism.
Mental dullness ..	Hypo-thyroidism.
Mental precocity ..	Hyper-thyroidism or hyper-function of sex glands. Also hyper-adrenalism.
Psychosis	Hyper or hypo-thyroidism, or hyper-function of sex glands.

Differences in Grades Within the Type Levels

It is comparatively simple to identify the difference between thyroid and adrenal types, but not quite so easy to differentiate between levels in the same type groups as, for instance, between some subjects of the intermediate-level adrenal and the pituitary-adrenal types. Again, it is sometimes difficult to recognize the difference between a basically lower-level thyroid type and one on a much higher thyroid type level who is temporarily suffering some sub-thyroid disturbance. In both latter types the same physical conditions exist: the fatness, slowness of movement and thought processes, phlegmatic disposition and indetermination of purpose. Yet while these are natural to the lower-level type subject they are abnormalities in the individual of the higher thyroid-type level.

An intermediate-level adrenal type with clear-cut, angular features is quite likely under certain conditions of strain, poor

diet or unhappy environment, to become haggard, sallow in complexion and dull of eye. In disposition his irritability, intolerance, brusque argumentativeness and deterioration of civility reflect many of the characteristics of the lower-level adrenal type. Thus it is shown that no matter what balance or development may be attained in basic traits, this 'superstructure' of development can rarely withstand the pressure of unnatural strain, and the subject may therefore revert to his original level or fall even further below this. (An instance of this same 'falling back' has been given in Chapter V which deals with pituitary-adrenal types.)

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To summarise: the greatest care should be taken to ensure accuracy of observation and analysis. Hasty conclusions are most often incorrect, no matter how clearly outlined and 'true' the type may appear. Again, it must be emphasized that this book offers no course of 'character analysis', and no rules for the 'character reader' who wishes to astonish his friends by a display of 'face-reading' parlour tricks.

However, these principles if rightly applied can have illuminating results when men and women use them in a sincere effort to understand themselves and their children, their neighbours and employees. It is hoped that people who seek this wider consideration of human values will find the general outline of this book helpful as a stepping-stone to deeper and more comprehensive studies of the subject.

CHAPTER IX

CONCLUSIONS

> When a thing ceases to be a matter of controversy it ceases to be a subject of interest.
>
> HAZLITT.

Science Humanized

In any truly enlightened age there should be a noticeable scarcity of criminals, mental deficients, neurasthenics and vocational misfits. In an enlightened age science would be used to construct and analyse rather than to destroy, to mend rather than disrupt, to adapt itself to human problems rather than to devices which are fantastically anti-human. Today many people regard 'science' as a coldly factual pursuit, inimical to human understanding, incapable of adaptation to the more deeply personal problems—a matter of test tubes and formulas which have nothing to do with the emotional drama of living. Scientific power is regarded with some forboding in present days, and with some reason. The scientist is accused of regarding human beings only as a collection of anatomical facts, without regard to the important intangibilities of temperament. Yet some branches of medical science—especially in the field of endocrinology—hold potentials which might be immensely developed so that all spheres of human thought and action would be illuminated by a new knowledge from which all persons, regardless of age, sex or social circumstance, would benefit.

What Can Be Done?

Destructive criticism is easy enough. It is the common language of would-be reformers. "Wrong! Wrong!" they cry from their pinnacles of superior knowledge. But what is right? How may circumstances be bettered? Is it, in fact, possible to better them at all? There is a certain kind of not ignoble stoicism which accepts the fact that no one may rely on his gaining opportunities for true self-fulfilment, that the 'next best thing' is the common lot, and that conditions are what they are because people are what *they* are, and nothing much can be done about either. The whole business from beginning to end, such stoics say, is a gamble, a

lottery. Everyone takes his chance. If he is lucky—good. If not, then 'that's life'.

It is true that no one may plan his or any other person's life as one might a recipe or a diagram. The elements of chance, circumstance or opportunity cannot be anticipated. But the broad outlines may be set down. There should be at least an effort to lay the right foundations, to strengthen the fundamentals of character, to systematize training according to the individual's basic needs. While there can be no foreknowledge of events, there can be a present knowledge of what to seek and what to avoid. No one may predict the *circumstance* of today's child twenty years hence, but one may recognize here and now the clay of which the child is made, and how he may be trained so that his future difficulties and frustrations may be minimized so far as is humanly possible.

* * * * *

> Any serious consideration of the physical-personality link inevitably leads to surmise and discussion; the following questions may be apt at this point.

Could a speedier evolution of the human species be brought about through a practical application of the principles of endocrinology?

Most controversial topics have as their background a whole series of other controversies, so that the main answer may only be arrived at on a basis of collective conclusions about the rest. Firstly, there are two distinct schools of thought concerning the theory of evolution. One group upholds the theory in its entirety; the other rejects it wholesale and believes in the Bible story of creation. At the expense of avalanching derision from die-hard evolutionists, the author maintains that there is no more conclusive proof of man's having begun as a protozoa than that he was from his earliest beginnings equipped with a human body and brain. Which came first, the chicken or the egg? According to the evolutionist the 'egg' gradually materialized as a result of some mindless phenomenon which makes man's present fact of existence no more than a whimsical accident of chemical genesis. The creationist's belief, while not acceptable to those who deal in pure science, at least embraces the idea that man's existence involves some plan and some purpose.

In asking whether a speedier evolution of the human species might be brought about through a practical application of the

principles of endocrinology, we must be clear about the meaning of 'evolution'. If it is taken literally to mean the development from one specie to another quite unlike the first, the answer must be negative. No injecting of glandular secretions or grafting of glandular tissue could make man into a completely different or *new* type of being, even though the male temperament may be converted to female and vice versa. Were a perfect man to be found he would be equivalent to the perfect circle, impossible to improve upon. Were alterations made in imperfect human beings, no effort could make them more than 'perfect', and that only within their own natural limits and according to their basic inheritence. No matter what means he employed, the most gifted man could achieve no more than an excellently balanced body and brain, the total of himself at his best. If, in an effort to make himself a superman, he were able to graft in a second pituitary, or regularly injected pituitrin, the most he could hope for would be ultra-extraordinary genius, raving insanity or death. Small doses, given under a qualified endocrinologist's most careful direction, might bring about an improvement in health, personality and general well-being in accordance with the patient's norm. No new species of *homo sapiens* could possibly result from such injectings or graftings. At this time of writing there are comparatively few specialists in this branch of medical science. Treatments if given for the sole purpose of evolving a higher level of intelligence in man would be fraught with danger since the adjustment of any one glandular function could only have good results if the other endocrines were meticulously balanced accordingly. For instance, as has been mentioned earlier, the thyroid type is what he is because the thyroid influence in him is dominant over the adrenal. An increase in thyroid proportion would bring about diminution of adrenal; hence the subject would become less balanced than previously, both in mentality and behaviour. The 'balanced' type of person is one in whom all the glands play their parts evenly and in adequate proportion—thyroid, adrenals and pituitary combining their functions to make the all-round, intelligent, well-balanced person. A forced increase in the power of any one gland—unless it were deficient already—without a like increase or proportioning of the rest, must put the subject off balance and have a worsening effect.

Therefore it can be stated with more than a fair degree of assurance that:

(*a*) No new species will evolve by glandular treatment and experiment; and

(*b*) Glandular treatment can bring about only a rise or fall in physical and mental capacity, and an alteration of temperament in strict accordance with the individual's basic qualities.

The surest way of bettering the species would be by selective mating. But this method is so unlikely to be put into practice that it can hardly be considered. Idealistic eugenics are all very well, but marriages are not made in laboratories and human nature will certainly see to it that the propagation of the human race continues in its present delightfully haphazard manner.

Would it be possible for man to attain great longevity through glandular treatment?

This is extremely doubtful and many would agree that it is not desirable. Numerous experiments have already been made with monkey glands and some of the results, though spectacular were short-lived. Tampering with any one gland with a view to such spectacular results is highly dangerous. So long as all the glands in the body perform their proper co-ordinated functions, man lives normally and dies when his body can no longer continue its complicated working. Senility ensues when the glands have fulfilled their purposes and are worn out. The grafting of supplementary revitalizing glands could not, even with these new centres of hormonal production, bring about the required results since the body would still have other vital elements in slackening or closing-down stages. The connection of a high voltage power plant with broken-down lines of communication would have useless results. Some would have us believe that the influence of the sex glands is paramount in importance, and that by substituting new ones for old, man could live on, perhaps indefinitely. But while new sex glands and possibly new thyroid could be implanted, it would be impossible to graft in new pituitary or adrenals. Thus while death might be postponed for a time, the human functions would scarcely be 'human'; more likely they would be entirely sub-human, grotesque and purposeless. Since the adrenal system, and especially the adrenal cortex, is the key to life itself, its slackening and eventual cessation must bring about old age and finally death. For this there is no known remedy, and it is unlikely that one could be found to fit in with present modes of urban living. The stresses and anxieties of 'civilized' life in a highly mechanized, increasingly competitive world, the departure from simplicity and the rejection of many of the basic laws of health, hardly point to man's attaining any great increase in his life's span.

Does not a recognition of the physique-personality link imply a certain degree of fatalism? If people are no longer to be regarded as responsible for their conduct how can anyone say what is right or wrong in human behaviour?

It is true that glandular defects are often the causes for many sins against society, and that sufferers from such maladjustment can hardly be considered wholly responsible for their 'wrong' behaviour. At the same time there is no need to take a fatalistic view of human conduct just because external correction is of so little value in such cases. *Mens sana in corpore sano* is the rule here, and it follows that by adjusting physical (particularly glandular) faults, far better results would be obtained than by segregating or punishing the offender in the hopes that reflection and suffering will make of him a better man, and transform him from an anti-social being into a useful member of society. Tolerance and understanding do not mean passive acceptance of slackening of principle. They mean that sympathy and practical physical help may be given to social outcasts who at the present time bring upon themselves only censure and useless sermonizing. It means a considerable revision of the concepts of wrongdoing, and this reconsideration should be conducted in the light of new medical research. Fatalism is passive and must lead to human deterioration; tolerance and an energetic practical attempt to remedy social ills must make for improvement. The understanding of the physique-personality link is the working basis for the treatment of social problems, and while 'right' remains right and 'wrong' continues to be wrong, there is no need for such rigidity of judgment as is so often evident in law courts and religious organizations whose methods are to cast out or humiliate offenders, to break the spirit and to attempt by judicial or theological discipline to exorcise the devil of human frailty.

Since for centuries philosophers and sages have considered 'human nature' as a prime enigma without hope of final solution, is it not presumptuous and indeed impossible to judge the character of anyone with any certain degree or accuracy?

The infinite peculiarities and subtleties of human nature are regarded by many seekers after truth as beyond the realm of anyone's understanding. Ironically this does not prevent the majority of people from setting hard and fast rules about human conduct, or from swiftly pronouncing judgment on their neighbours on almost every occasion. The conundrum of 'human nature' may perplex the wisest of men, but the man in the street

(who is usually in a hurry and not concerned with the finer points of character and motive analysis) does not hesitate to make random summings up of his fellows. Sometimes these are fairly accurate; more often they miss the mark. Yet some standards are necessary, and judgments inevitable. Therefore, since for practical purposes standards of value and comparison are essential to the social structure, it would appear that in the comprehension of character there ought to be a more scientific basis than at present. The understanding of the connection between physique and character, and the identifying of general 'types' are at least two important steps forward in the everlasting attempt to solve the riddle of human nature; with this knowledge a highly accurate delineation of character can be accomplished.

Can a man, by understanding his physical make-up, enlarge his capacities or improve upon himself?

He can certainly make the most of his potentialities. Knowledge of his personal 'ingredients' may open his eyes to his strengths and weaknesses, and thus enable him to develop the first and counteract the second within the limits of his inherited qualities. This self-knowledge can be of great help to him both in business and social life; much of the fog which generally obscures his reasons for behaving as he does is lifted. The effort of the individual to understand himself need not lead to morbid introspection if he approaches this self-examination with a detached and open mind. It may enable him to avoid false steps and frustrations in choosing and training for a career; it may help him to seek the best kind of environment for his personal needs. A sense of sureness is developed when he is able to trust in his abilities and devotes himself to improving on them. Self-knowledge helps him to pattern his life economically and to make himself a contented and useful member of his community. The natural tendency to wear out the physical mechanism by 'kicking against the pricks' is lessened, and energies are directed and co-ordinated. Self-fulfilment can only arise out of self-knowledge, and from self-knowledge may develop sympathy and tolerance toward others.

How could the identification of glandular types in children be put to practical use in the schoolroom?

A lack of imagination is all too obvious in many a child's education. He begins school armed with an intense curiosity concerning all the fascinating objects and creatures about him. His imagination roves freely; his mind is inventive; his hands yearn to

find out the uses and peculiarities of all materials and to explore their possibilities. He is vulnerable to every impression, capable of remarkable concentration on matters which interest him. He is a small, intensely individual being, and even at the age of six or seven he has certain aptitudes and a certain cast of mind and body which should guide his teachers towards the provision of means for making the most of all his qualities. Yet in most cases the young person is forced with perhaps forty others into a fixed mould, and neither time nor energy is expended in allowing each child—or rather the several groups of children who may show similarities or physique and temperament—to develop true potentialities. Class-room regimentation aims at the unification of a widely assorted company of children. Standards of behaviour, neatness and correctness are set. Labels are provided for the various child units: 'bright', 'dull', 'backward', lazy,' 'wilful', 'deceitful,' 'story-telling', 'anti-social', 'untidy', 'well-behaved', 'dilatory,' 'difficult', etc., etc. Too often the idea of what a child's model behaviour should be is painfully uncompromising. There must be order in the class-room; there is only a certain time period during which the teacher's charges must be marched through their lessons, drilled for examinations and turned out as young 'educated' citizens, presumably ready to fill such jobs as may be economically available.

Yet in the educative process many children fail dismally. They rebel against the enforced assimilation of subjects for which they have neither aptitude nor even the vaguest inclination. Their fear of being thought stupid or disobedient sours their school days and inhibits their comprehension of even those matters which they might otherwise find instinctively absorbing. The 'disgrace' of examination failure adds to their feeling of inferiority, injustice or frustration. The class-room record shows damningly that they are not 'good' in certain subjects; any possible lingering enthusiasm for these is promptly stifled. The general tendency to accept the statements of authority as correct makes for defeatism in such cases. There are, of course, many kinds of teachers, and some do attempt to adapt their teaching methods to individual needs. In such instances it is only the system that is faulty, for bound by it, the teacher finds it humanly impossible to cater to the varying kinds of receptivity found among a large group of children. The middle path must be taken in the hope that some will forge ahead of their own desire, and that others will somehow manage to struggle along behind.

The economic factor cannot be ignored. So long as equal

educational opportunities are not given to all children, there must be a waste of ability and talent. So long as only money may buy the best kinds of tuition, the child of moneyless parents must be placed in an unfair position from the very beginning. But it is to be hoped that in the coming years there will be no such barriers, no reservation of higher education for the fortunate few, no assumption that those of lower income brackets have not the same right to self-development. While in America greater progress has been made in this regard than in any other country, there is room yet for improvement. Even in the most enlightened countries class distinctions occur. Society will insist on the formation of cliques and the setting up of barriers against the less fortunate. It cannot be denied that there must be distinctions, since abilities and temperaments differ so widely and communities demand a certain grouping. But the idea of 'inferiority' and 'superiority' should be eliminated, and it could be, were the distinctions made by means of a physical type-grading, the purpose for this being that each child could be accorded the kind of opportunity best suited to it. Such a system need not be inflexible; it would not seek to make a collection of pigeon-holed juveniles but rather to give each beginner careful consideration of potentiality, and to place him with kindred spirits.

In an enlightened age the commencement of school life would not be determined by the child's age in years, but by his physical and mental readiness to begin a systematic form of training. Children would not be bundled off to school simply because parents wished greater freedom from their cares, or because an early start presupposed a triumphal early finish. The forcing of a young mind to assimilate that for which it is not ready may have in the long run a retarding effect. It cannot be considered that the child who does not begin to go to school until a later date than his fellows, is simply vegetating, learning nothing. It may well be that he is learning a great deal and that his home life, if it is a happy one, is better for him than school life. When he does eventually embark on his official education, his mind is probably quicker, more attentive, more interested than it would have been in absorbing the same learning a few months or years earlier.

Gessell of Yale experimented successfully with this capacity for learning in children of different ages, and showed that the especial provision of training was not necessary, since the child of itself grasped this same learning quickly as soon as its body and mind were ready to deal with it. Of two identical twins, one

at the age of forty-six weeks was given especial training and assistance in the business of climbing a short flight of stairs. The process was difficult at first but parental efforts were rewarded by the infant's eventual triumph at the end of four weeks. At the age of one year (two weeks later) the child had no difficulty whatever in mastering the steps in twenty-six seconds. At this point the other twin was introduced to the stair-climbing enterprise. *Unaided* she managed the steps in forty-five seconds and after two weeks showed herself to be the superior of the two in this feat. In a further two weeks, and despite her six weeks' handicap, she was by far the more swift and agile of the two children in this particular activity. It must be remembered that identical twins are as alike in physique and mentality as any two humans may possibly be, and that in this test there could be no question of either child having any basic superiority of body or brain. The moral would appear to be that there is a distinct advantage in allowing a child to bide its time before being put to any test, and that the fact of age and growth alone will enable it to master and possibly to excel in the problems which younger children are encouraged to attempt as a matter of course. It may be further urged that the child who finds his efforts followed by success rather than frustration will be stimulated to tackle other larger projects with a far greater assurance than the one who is constantly pitting his body and brain against issues which are always just a little too difficult for him.

With this in mind, the age of school commencement should be elastic, in accordance with the child's capacity for acquiring knowledge. The actual determining of the age would have to be done by qualified persons who would provide this advice as a preliminary to later vocational guidance.

When the child is in the school room of the new era, what then? To begin with, he would not be a unit in one large, heterogeneous collection. Nor would he be a lonely individual, left to his own resources. He would be placed with others of his especial type—the physical and mental propensities of this general type being fully understood. Thus the first step would be made in grouping children according to their potentialities. One class might be generally made up of adrenal-typed children, another of basically thyroid, and the method of teaching would be adapted to the kinds of receptivity in each. The same subjects might be taught in both classes, but not in the same way. For instance the adrenal child would be swift to understand the tenets of arithmetic, the factual addings and subtractions, the cause and effect

of sums and equations. The thyroid child would require a more imaginative approach; arithmetic for her must be infused with as much humanness as the teacher can provide. Sums would have to be translated into stimulating matters of buying and selling, or collecting and giving away; the figures would need an interpretation, a warmth, some introduction of colour and drama. Figures *as* figures leave the thyroid type of child apathetic and disconcerted. But figures illuminated by inventiveness help her to regard 'arithmetic' at least palatable, if not actually enjoyable.

This group system has no connection with other methods of segregation now practised; it does not necessarily involve a separation of the sexes, nor any division between the so-called 'bright' children and the 'backward' ones. The number of different groups would depend entirely upon the size of the school and the variety of types of children it housed. Probably in an average school the grouping would be of four main types, these being divided into small, easily handled class-rooms.

In this way a far greater evenness of progress would be ensured. The class, being truly unified, rather than forced into an unnatural oneness, would move forward unhampered by the presence of misfits, and there should be a marked impetus towards achievement when the group is not divided within itself in aptitude and interest. There must be, of course, some variation of mental quality within the group, and a consequent system of competitiveness and gradation, but the mental quality would be *of the same order*.

Thus the bad effects of 'bulk teaching' would be avoided. The segregation of types implies no stigmas, no sensations of inferiority or superiority. The main point is that each child might be assisted to perfect his individual abilities and never forced to concentrate on learning, parrot-fashion, any subjects which his natural inclinations will cause him to forget as promptly as is permissible. Many of the labels: 'slow', 'backward', 'dull', could then be discarded, for only in the rarest (and usually clinical) cases would any child be incapable of doing anything well. Self-respect is a product of confidence in personal 'rightness'; without this precious sense of sureness there may easily accumulate an unhappy collection of such traits as laziness, wilfulness, exhibitionism, etc. It is of small importance that a child cannot do this or that; it is what he *can* do that matters. If he is assisted in bringing his abilities to fruition, the other requisites may gradually strengthen themselves.

The whole problem of how to guide children outside the school house is in itself too vast a subject to be treated here in any

detail. But again the key to the solution is surely the understanding of the physical-psychical relationship, for this understanding is a prelude to the recognition of the kind of treatment which is suitable for each different type of child.

How could the understanding of the physical-personality link be applied in helping young people to decide on their vocations?

The same principles as outlined for school training could be followed when the graduate is about to earn his own living. It is useless to insist that he take on some job simply because it promises good wages or is in some way haloed about with respectability or prestige. The boy or girl should be encouraged to do that for which he or she is best fitted physically and mentally. With the present scientific knowledge it should be possible to eliminate to a great extent the uncertainty, the hovering, the false starts, failures, disappointments and useless regrets which follow when young people take on any job without true regard for its suitability to themselves. Take the example of one boy, John, who looks half fearfully, half enthusiastically towards his début as a wage earner. His mother, herself an accomplished musician, persuades herself that her son has inherited her talent, and pleads that he be given an intensive musical education. His father, a man of sober caution and immense business pride, expects the boy to follow his footsteps in the family firm. His uncle, a wealthy personage whose words are much respected, advises John to join the Navy ('make a man of you, my boy') while his grandmother, wishing him to be spared a physically arduous life (on the grounds that 'he isn't really strong') tentatively suggests 'some sort of clerical work'. Yet the boy, respectful towards these adult opinions, finds none of them in the least attractive. He stands bewildered, the focal point of family argument. Some exasperated member might well exclaim, "Well boy, what *do* you want then?" The answer is: impartial advice.

In the new world this might be given him by an impersonal adviser who is concerned only with young person's true ability and temperament. The interview would not involve any swift abracadabra of question, answer and intelligence test, but there would be a judicious consideration of all the points of issue: the boy's physical make-up and accompanying 'build' of disposition, the background of education, the kind of home life with its effects, and the hereditary factors which would include those of parents and grandparents. His latent qualities would not be ignored even if they had been previously unsuspected. The fact of temporary

prowess in some scholastic subject would not necessarily presuppose the boy's adult capacity for this same subject. The boy's present (possibly unrevealed) aptitudes as well as his past performances would be the bases on which the choice of vocation would be made. This is admittedly a radical departure from present methods, but there is surely some need for considerable improvement on today's efforts in the field of vocational guidance.

In the name of 'security' individual potentialities are often stifled. The mother who wishes her boy to enjoy freedom from the more acute financial worries may persuade him to undergo training for a job which recommends itself only for its 'steadiness'. It may be uncongenial but it provides a fair and regular wage, and a pension at the end of forty years' service; it may be monotonous but its background is established and it holds some promise of 'a future'. So begins a bondage from which any means of escape is increasingly difficult. Being imbued with the idea of security's importance even at the expense of self-fulfilment, the beginner accepts the situation. As a bank clerk he performs his duties as well as he is able, casting only an occasional backward glance at his first dreams of farming, or becoming an artist or engineer. "Such is life," he tells himself, meaning that life is far from satisfactory, that an undercurrent of discontent troubles his reflective moments—but that his first enthusiasms were probably childish and impossible of materialization. At all events it is too late now. Besides, he is not the only one who leads this kind of half-life; there are thousands like him. Thus, while many 'wrongs' cannot make a 'right', they provide a feeling of companionship in folly.

The parent who, when the perilous seas of vocation are first timidly approached, says warningly, "But child, you must be *practical*", is often assisting in an entirely impractical launching. A sensible or 'practical' choice for one may be talent-suicide for another; what is reckless foolishness for one may be courageous conviction in another. Vocational guidance can be dangerously misguided if its principles are at all faulty, or if its purposes are tainted with parental selfishness. A clear understanding of individual temperament, basic ability, possible latent talent and adaptability is not universally practised by those who are most anxious to assist young people in choosing their niches in the workaday world. A large percentage of misfits constantly emerge, and these need not be the problems they are. "Circumstances beyond our control" may be blamed for some vocational disasters, but not for all of them.

So far as the employing of staff and labour is concerned, do not references and training background provide more reliable indications of a prospective employee's ability than could be gained by a casual interview with him?

A man's references and his past experience do not necessarily give a clear picture of his abilities, and there is need for a refashioning of method in the selection of staff and labour. In general the present procedure is as follows: A man is needed to run an electric drill. Ten applicants are interviewed, each being given an application form on which he must state his past experience in this particular work, his school record, his previous wage, and the names of the last three firms who employed him. After an analysis of the ten applications, one man is chosen, the selection being made on the basis of good 'qualifications'. The man's education has been sufficient, his previous employers have each given him a reference, and most important of all, he has always handled the particular type of machine for which the staff manager seeks a worker. It is significant that the chosen man is rarely asked whether this is the job he is best able to do, or whether he would be able and glad to use his manual skill in some other capacity.

The 'unsuitable' applicants are rejected mainly because they lack the Open Sesames, references, or because their background of experience is in some way lacking. A man may plead that he believes himself quite capable of handling an electric drill; he seeks only the opportunity. Such work is exactly what he wishes to do, but until now he has been tied to a different type of job. Yet the staff manager views him askance, for he is that dangerous entity, the unknown quantity. Of the one chosen (the one suitably labelled: 'electric driller') and the one rejected, the latter might prove by far the more satisfactory in the long run; with training he might develop a higher degree of skill and fill his niche happily, without the temperamental discontent with his job which constantly plagues the chosen man.

In the higher staff grades there is already a greater elasticity in the engaging of men whose qualities must be of a more general nature. Even so, present methods tend to be of a hit-and-miss variety, for even the most shrewd executive may be mistaken in judging his applicant's personal and business qualifications. 'First impressions,' as has been pointed out earlier, are not infallible guides. Not everyone puts all his goods in the front window, and it requires some skilful examination and deduction to find out exactly what the pros and cons of ability and temperament may be. Temperament especially is a factor too often accepted at surface value by those who profess to recognize an industrious or intelligent man when they see one. And when a certain kind of job requires a delicate combination of quiet diplomacy, energy, opportunism and constructiveness, temperament is more important than any amount of business theory or routine efficiency. In this regard there can hardly be set any exact or final standards; one man may achieve better results by slightly unorthodox methods and 'inspiration', than another who goes about his work according to the tried and tested precepts of manuals with such glowing titles as 'The Quick Way to Success'.

At all events, the stress on references or the recorded evidence of past performance, on statistical facts which go to the making up of 'procedure', may appear the acme of efficiency yet, since it is devoid of human understanding, be entirely misleading.Perhaps in the future there will be a drastic revision in methods of labour allocation and staff selection. Men will be hired on present merits; their history will not be ignored, but considered in conjunction with vital matters of temperament, ability and possible undeveloped qualities which deserve attention and scope. And again, the system would be founded on the physique-personality link, with some gradation of types and type levels.

Would it be possible by means of an understanding of the link between physique and personality, to adjust the behaviour of persons convicted for criminal offences?

The 'eye for an eye and a tooth for a tooth' method of treating people who have committed offences against society has not, it must be admitted, proved wholly effective, and for this reason enlightened men and women in most countries are now searching for new systems calculated to harness and adapt the energies of anti-social members into constructive rather than destructive actions. As in schools of the old order, regimentation has had bad results; there is little consideration of the individual. In fact there is a remarkable similarity between old-fashioned schools and prisons. Both are inelastic. Discipline is given priority over understanding, and there is a machine-like insistence on the formation of *one* product out of a widely different assortment of ingredients. In schools the idea is broadly that the pupil enters uneducated and emerges educated; in prisons the general notion is that the criminal goes in as a bad character and comes out chastened and good. In both cases this optimism is often quite unjustified, for though on the face of things, the result may be neatly classified as 'education' or 'reformation', the actual facts flatly contradict

this. It is significant that the 'honour' system instituted in some prisons in the States some years ago, has not borne the fruits anticipated by its promoters. To hope that a dyed-in-the-wool convict will live up to his promise (even made with the utmost sincerity) that he will thenceforward tread a straight and narrow path, has in it the same wishful thinking as an acceptance of an adrenal type of man's vow that never again will he allow himself to show his quickness of temper. To ignore the physical facts so clearly demonstrable in each case is sheer blindness.

Naturally there must be adequate safeguards against the violation of life and property; there must be laws and correctives. 'Let the punishment fit the crime' still stands. But after punishment, what then? Is the culprit to return to the outside world unchanged except for the addition of a few new conceptions of the power of authority, and a determination to evade or outwit this power? Punishment alone simply instils fear which quite often is as great an incentive to wrongdoing as is bravado—for while fear may inhibit many healthy emotions, it is well known to emphasize those which are most violently anti-social. Fear of punishment then, is not enough. There must be a new outlook and a new approach to living, and this can come about only through an adjustment of both *body and mind* to normal, healthy communal life. In the cases of older, hardened criminals who have served several prison sentences and whose bodies and minds are incapable of this new approach, there is unfortunately little to be done. The released convict may genuinely desire to change his ways, but the combined forces of (*a*) the stigma of prison life and the community's prejudice against an ex-convict, and particularly (*b*) his own physiological imbalance, usually militate against his best first intentions. This is where free will and determinism come into the most unhappy conflict.

Hyper-thyroidism is a dominant factor behind many anti-social offences both petty and major. Hypo-thyroidism with its sluggish effect on mentality and physique may show itself in the unfortunate subject's foolish, irresponsible behaviour which brings him into the class of the 'delinquent' or 'criminal'. Again, disturbances of the adrenal balance, especially in hyper-adrenalism, may result in crimes of violence. Any disturbance great or small in the endocrine system causes some variation—slight or marked—in the normal law-abiding nature. Even if the resultant behaviour is not sufficiently lawless to bring the subject to court, it may at least provide a warning of possible trouble ahead. It has been well established that thymo-centrics have great difficulty in conforming to established customs and moral laws: In them the thymus gland, failing to regress since childhood, causes a severe imbalance in the whole chemical system and correspondingly in the entire personality. Brilliant, restless, sensation-seeking and often outrageously irresponsible morally—such is the general record of this group.

In dealing with younger offenders a realization of this physical-personality link could be of immense value. In modern courts there is admittedly some attempt now to diagnose mental and environmental causes of crime. Psychologists and welfare workers seek to unravel the complex maladjustments which lead to delinquency. But their attack is usually through the mind and has little to do with the body except in instances when the offender is obviously insane or clearly handicapped by some fault of physique. The person who *looks* normal is the puzzle, for on the surface there is little to distinguish him from his law-abiding neighbours. It remains for the medical psychologist to determine possible glandular defects and to treat these with a greater degree of scientific accuracy than may be obtained merely by intelligence tests and a study of the culprit's background and heredity. From a faulty mechanism it is impossible to expect rational behaviour, and since the mechanism of man's anatomy is singularly delicate and vulnerable, the understanding of it, especially in regard to crime, is of prime importance. Treat the body then, with as great a care as you would treat the mind, for the two are linked so closely that it is useless to deal with either separately.

It need hardly be pointed out that an ounce of prevention could eliminate many of the weighty cures attempted after the damage has been done. It would be quite possible to nip in the bud a great many of those traits which burgeon so alarmingly when they are neglected. It is easy to say that children have consciences which automatically dictate to them what is right and what wrong, but in fact, while the child may ponder and elaborate on these conceptions, he cannot be expected to possess within himself the ability to differentiate clearly between them. From his point of view an enterprise such as, for instance, the inspired construction of an Indian wigwam from his mother's best bed sheets, seems a sensible adaptation of available material into a useful object. Or again, stimulated by an honestly artistic urge to surprise his parents by painting the garden wall (and incidentally his Sunday suit) a satisfying shade of vermilion, he may be actuated by the best motives. It may be a rude shock to him to find out that his actions have been naughty, bad, wrong, and warranting

punishment of a startling nature. It dawns on him then that the adult world has some curious ideas. What he has seriously felt to be not only practical and worthwhile but positively enjoyable, is, he learns, foolish, useless and wicked. Small wonder that he begins to associate 'wickedness' with 'pleasure' and from these beginnings to investigate other kinds of behaviour which this time are really anti-social though pleasing to himself. Parents may be astonished to know that through their impatience and lack of insight they may actually be fostering the very qualities they most deplore. This does not mean that children should be allowed to run wild, to experiment destructively with everything they can lay hands on—but it does mean that parental tactics could often be altered to advantage. A respect for personal property should be implanted in the young mind, certainly, but not sweeping generalizations about 'right' and 'wrong' in so far as the *motive* behind childish experiments is concerned.

Most important of all, it should be understood that bodily maladjustments which may have few surface indications, can be the cause of serious offences. When these offences are of a particularly dangerous kind the child may be labelled 'mentally deficient', for this is a term conveniently used to embrace a multitude of incomprehensible childish actions. The understanding of the child's physical make-up is the mainspring of his happy progress throughout the years. It is to be hoped that some of the traits in juvenile delinquents may in time cease to be called 'criminal tendencies', and be treated for what they are: simply an illness or faulty working in the combination which must be understood in both its main factors—physique and personality, interrelated and indivisible.

Can you explain some human 'abilities' which at the present time are difficult to link with normal behaviour and capacity. Extra-sensory perception for instance, and telepathy?

The exact borderline between the credible and the incredible is often difficult to determine. With the widening of the horizons of knowledge that which one generation regards as fantastic and nonsensical theory may in the following half-century become qualified fact. Therefore it is as well to maintain an open mind about some questions which at the moment have no text-book solutions.

Ordinary sense perception is generally understood. The everyday functions of the organs of sight, hearing, smell and touch, excite no astonishment or perplexity for they are altogether

accepted as commonplace. Yet when sensitivity is so heightened that to the normal person it seems quite beyond comprehension, there may occur inexplicable situations regarded by many as evidence of 'psychic phenomena'. The analysis of such sensitivity is not easy, for occurrences of it can rarely be anticipated under any given conditions, as for instance in a laboratory or consulting room.

The possession of acute powers of sensory perception cannot be regarded as a wholly pleasurable adjunct to one's personality. No one would choose to be entirely vulnerable to 'atmosphere', or to know that he has a marked faculty for registering emotional impressions which should (by all the understood laws of time and space) fall far outside his own orbit of experience. Yet it is not unusual for such subjects to be physically affected by fear, depression or bewilderment during some brief visit to a room or place where some *past* distressing event has evidently left its emotional traces—these being entirely imperceptible to most people.

Such unusual sensitivity cannot be positively linked with any one type classification, but it is most expected from those whom we have called 'pituitary-thyroid'. Were there any definite means of collecting such data among numbers of this type, it might be deduced that at the particular time of their perception their physical condition was hyper-thyroid. Since there are more women than men of the pituitary-thyroid type, it is understandable that extra-sensory perception is more often experienced by women than by men.

It is quite commonplace to hear of persons who have shown dramatic reactions to places which on the surface bear no imprint of past violence or human suffering, and about which the visitor could have had no possible prejudicial information. People have been known to experience a sudden positive awareness of the injury or death of someone to whom they are closely attached. Such 'messages' are often completely unexpected, and the means by which they are transmitted cannot be explained. It is easy enough to dismiss such uncomfortable instances of perceptivity as merely a kind of coincidental imagination, or the products of a fevered or even unbalanced mind. Yet this extra-sensory perception may be a part of a perfectly sane and sensible person's character equipment; it by no means always accompanies any enthusiasm for dabbling in psychic matters. Sometimes the faculty is regarded with alarm by its possessor as a morbidity of which she would be glad to free herself. It is possible, of course, that it might become

an obsession which could prove physically and mentally harmful. But in itself it is not so. Only when it is exploited or viewed in an eerie, unhealthy light might it become in some way disastrous to the balance of the personality.

Extra-sensory perception should not be confused with spiritism or any form of ghost-hunting science which involves the wilful pursuit of the supernatural. Many completely 'ordinary' people possess unusual sensory powers; some cannot tolerate the proximity of any furred or feathered creature, and show their reaction in paroxysms of sneezing and nasal discomfort akin to that of hay fever. Others have an acute sense of touch which, again, is regarded as quite uncanny, for such persons, blindfold, need only rest their fingers on a level *above* the object in order to discern its nature, texture, warmth or solidity. The sense of hearing, in some is so finely attuned that they are able to identify sounds not at all discernible to others present.

In many animals the degree of sense perception is far more acute in every form than that generally experienced by human beings. It has been related of horses that they will avoid any part of the road where there has been *in the past* some serious accident which they did not themselves witness or experience. That horses and dogs may learn to understand quite clearly the emotions and temperaments of their owners, is commonplace. Bloodhounds and hunting dogs are equipped with such a keen sense of smell that they can with precision follow the trail of any person or creature whose scent they have first been allowed to identify. And, to stray again into the province of what is commonly regarded as supernatural, dogs are said to herald a death by their distressed howling and whimpering—although this may very well be no more than one of the gloomier superstitions.

Telepathy is communication between persons who neither speak nor make any outward physical indication of what they wish to convey. Often the thought or 'message' is not even especially motivated, but it can happen between two people whose bond of understanding is unusually complete. (Fairground 'thought-reading' is, of course, an entirely different matter.) It may well be that of two persons who by extra-sensory means are able to establish this form of communication, one is the sender always, and the other the receiver.

To what extent the circles of spiritism reconcile psychic phenomena with physical facts is not clear. This field of investigation is necessarily a specialized one. Yet it is possible that just as the perception of some phenomena might be explained by reference to unusual physical abilities, the recognition of other phenomena might likewise be attributed to the same strange faculties. The actual explanations for the materialization of ghosts and for other supernatural happenings such as are demonstrated by reliable psychic mediums are scarcely within the bounds of present physical explanation.

A century ago no one could have foretold with any seriousness that a day would come when a man in New York might converse clearly and casually with a friend thousands of miles distant. Or that by means of radio the confidential tones of kings and sages might be heard in the humblest homes all over the world. Only a little time ago, as time is measured in the world's progress, such statements would have been regarded as the dangerous pronouncements of disordered minds, or as the wicked proclamations of the witch or any other possessed of the Evil Eye. Since this generation, despite its achievements, can hardly claim to have attained the summit of knowledge, it can scarcely be denied that in some future time men and women with certain physical attributes may be able to communicate, not haphazardly as now, but clearly and with purpose by means of a fuller knowledge and development of extra-sensory perception. In the same way other unusual feats of perceptivity may become fully understood and put to some valuable use.

Individuals and Masses

Just as the strength of a chain depends upon its weakest link, the condition of a community is entirely dependent upon the condition of every individual who makes up its being. To speak of 'the masses' is to ignore the personal state of the individual; he is not a human being who thinks, strives, works and plays as and where he chooses, but a proscribed unit without identity or originality. A class system of regimentation imposes a superficial social tidiness, an efficient effect of grouping, a certain economic fairness, and an elimination of the intensities of either brightness or gloom, so that 'the mass' is in effect one-coloured, or more often dun-coloured. The process of equalization may raise the standard of some, but its usual result is the cancelling out of individuality, the lowering of the general standard of human effort. The spur to achievement is removed and replaced by a kind of mechanical stimulation. In a vast family of robots the individual is but a stereotyped machine, expected to behave according to the regulations. With his practice in this obedience he must lose his initiative, his private enthusiasms, his separateness from other men. No

longer can he stand alone, a complete person—and the tragedy is not so much that of cruelty or outright destruction—but of waste. Wilful waste of time and property is widely regarded as an offence against the social order, but the greater waste is that of the man who throughout his precious lifetime lives only partly, his potentialities never realized, his constructive powers never fully used, his energies directed along any path save the one wherein he would find the greatest measure of personal satisfaction and contentment.

Such waste is everywhere apparent. Too often it begins with a child's first day at school, and culminates with his retirement from a job which he has regarded only as a means of livelihood and never as a source of pleasure or fulfilment. It happens everywhere when no attempt is made to develop the talents of a young person, or when an employer takes no pains to show his employees any personal recognition of service, or to consider their temperamental suitabilities to the work given them. Waste of human material is an everyday occurrence. In civilized countries where the god of Progress is worshipped, it happens perhaps the most often, for the larger the society the less the attention accorded to the individual. Often a man is referred to in no complimentary tone as 'an individualist', the unspoken accusation being that he is almost freakish in his insistence upon his right to form his own opinions, and in his refusal to swallow the universally administered doses of what-and-how-to-think.

To the shocked rejoinder: "But we can't *all* be individualists!" the reply is surely that everyone has a right to be himself even if he does not wish to exert this claim in any dramatic form. Everyone should be assisted to use his abilities to the best advantage both of himself and his community; in this expectation there can be nothing unreasonable or fanatical. There must be brakes and checks on overweening ambitions; there must be direction and cohesion in the system of society, but at the same time allowance should be made for every subject's personal contribution to the community's success and happiness. Efficiency should not necessarily imply a departure from human feeling. The greatest efficiency is realized when a balance of mentality and emotion is used in any individual or collective effort. The personal touch, then, is important. In education, in the choice of vocation, in the management of workers, and in fact in every sphere of human endeavour a large measure of contentment and efficiency can only be expected when the individual is understood, assisted in finding his rightful place and given every opportunity for self-development. Whether the subject be capable of great or only minor efforts, he should at least be allowed to exert himself to the fullest extent within his own—and not other people's—limits.

A Plea for the Individual

In every imaginable sphere of human endeavour and association the understanding of the physical-personality link could be helpful—in family life, in the teaching of the young, in the choice of careers, in the treatment of juvenile delinquents and older offenders, in the care of the sick and the human problems of the healthy, in self-understanding and the achievement of a wider tolerance towards others. With a raising of individual standards of health and happiness the communal standards are made more lofty. A better world cannot be formed unless the individual is allowed to make the best of himself. For the world is made up of people, of you and me and thousands of others in the same image, every one an individual, every one entitled to develop his innate qualities to their fullest extent without hindrance or suppression.

THE END