

I.S. Vitenko, R.I. Isakov, V.O. Rud

MEDICAL PSYCHOLOGY

Edited by Professor A.M. Skrypnikov

**MINISTRY OF HEALTH OF UKRAINE
UKRAINIAN MEDICAL STOMATOLOGY ACADEMY
DEPARTMENT OF PSYCHIATRY, NARCOLOGY AND
MEDICAL PSYCHOLOGY**

**I.S. Vitenko, R.I. Isakov,
V.O. Rud**

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Reviewers:

professor N.O. Maruta, professor V.M. Kozidubova,
assistant of professor K.V. Sedykh

Edited by professor A.M. Skrypnikov

I.S. Vitenko

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The textbook consists of two parts which illustrates main positions of general and special medical psychology. Main criteria of normal, borderline and morbid psychic, peculiarities of physician's psychology and interrelation between physician and patient were showed. Basis of psychosomatic mechanisms of diseases development and somatopsychic relations, problems of medical deontology, basis of psychohygiene, psychoprophylaxis and psychotherapy were showed. Special attention was devoted to the problems of human's suicidality.

For Students of Foreign Faculties with English education's form of Medical Universities.

PREFACE

Experience of teaching medical psychology in medical university reveals a great importance and actuality of basis of general psychology as part of common education of future medical specialists for all specialties. Without knowledge of basis of this science is impossible to teach future physician for understanding psychology of patients with different diseases.

The role of patient's psychic in the successful performing of diagnostic, treatment and rehabilitation is very important. The main objective of medical psychology teaching is learning a future physician of use patient's psychologies peculiarities for the successful health's rehabilitation and protection.

There is critical important to educate medical students on the ethics, morality and humans principles. So a special attention in the textbook was devoted to medical deontology, problems of relations between physician, patient and relatives during different periods of medical care (diagnostic process, hospitalization, investigations, surgical manipulations, unsuccessful outcomes ect.).

Authors of the textbook are hope for the use information from the textbook not only for education process in medical universities, but for professional practice of physicians too.

PART I

General Medical Psychology

CHAPTER I

SUBJECT, TASKS, STRUCTURE AND METHODS OF MEDICAL PSYCHOLOGY

Objectives: to learn the subject and tasks of medical psychology, its history and place in the structure of psychological sciences, to get acquainted with main methods of medical psychology.

Psychology is a science about the origin, development and regular manifestations of psychic activity of a human being.

This term was formed from the Greek words "psyche"(soul) and "logos"(science).

The main stages in development of psychology were:

1) Psychology as a science about human soul appeared in the field of philosophy more than 2 000 years ago.

2) In 17th century due to the accelerated development of natural sciences psychology appears as a science about consciousness which supposed to control the thoughts, wills and emotions.

3) In the 70ies of 19 century psychology develops as an independent science. Its task was the observation of human behavior, deeds and reactions without taking into account the motives and subjective factors. Also the experimental branch of psychology begins to develop.

4) Development of modern psychology.

The principal tasks of psychology are:

1) Study of the regulations of the psychic development of a human in its development.

2) Investigations of the reflection of reality in the mind of a human being.

3) Study of mechanisms, regulating the actions and activity of a human being.

4) Study of the mechanisms creating the psychic traits of a person.

5) Determination of a certain dependence of psychic phenomena depending on the way of life and activity of the individual.

Nowadays psychology is a complex system of interdependent psychological sciences. **The principal branches of psychology are:**

- General psychology – the study of common regularities in the psychic activity of a grown-up.

- Child psychology – the study of regularities of the psychic development of a child.

- Teenage psychology – the study of regularities of the psychic activity of teenagers.

- Late-age psychology – the study of regularities of psychic activity of elderly people.

- Social psychology – the study of psychic phenomena in groups and collectives.

- Pedagogical psychology – the study of the psychological basis of teaching and upbringing.

- Work psychology – the study of the psychological basis of a man's working activity.

- Pathopsychology – the study of various forms of disorders of psychic activity and their development.

- Other (e.g. medical, military, artistic, space etc.).

Separation of medical psychology and an attempt to determine its importance as a subject of teaching goes back to 1852 with the publication of "Medzinsche Psychologie", a work by R.H. Lotze, a German scientist.

Medical psychology is a branch of psychology which studies the psychology of the patient, the role of psychic factors in the origin and development of the disease, the psychology of relationships between doctor, staff and patient, as well as the use of a psychological approach in medical practice.

Medical psychology has two lines of development – general medical psychology and applied medical psychology.

General medical psychology studies psychological peculiarities of the patient; the criteria of normal, temporarily altered and morbid psychics; the correlations between an individual and a disease; psychology of a doctor in his relations with the hospital staff; psychology of relationships between the doctor, his patient and relatives; teaching on a doctor's duty and ethics; teaching on iatrogeny caused by the carelessness of a doctor's words; peculiarities of ageing and its influence on the disease.

Applied medical psychology studies psychology of patients suffering from nervous-psychic disorders; psychology of psychiatric patients and patients with dependencies; psychology of patients

with nervous diseases; psychology of patients prior to and after an operation; psychology of patients with cardio-vascular, gastric infectious, venereal, pulmonary, gynecological diseases; psychohygiene and psychoprophylactics in cases of pregnancy and child-birth; psychology of endocrinological and oncological patients; psychology of patients with physical abnormalities and sensory defects (e.g. blindness, deafness); psychology of the disabled.

The basic points of contact of these sciences are the psychological peculiarities in doctor's conduct, correction of mentality while treating the patient and psycholotherapeutic influence. Medical psychology is connected with all medical specialities (therapy, surgery, obstetrics, gynaecology, paediatrics, hygiene and others). It has some specific methods and thus it plays an important role in doctor's training in any speciality.

Mental phenomena are determined by the factors of environment (mentality is a form of reflection of the objective reality). However, any outer influence produces one or another psychological effect under inner conditions such as the mood of the individual, his aims, needs and life experience. Due to activity the mentality fulfils the function of orientation of the person in a variety of surrounding events and phenomena (it is manifested in selectivity of the subject regarding outer influence) and the function of regulating behavior (stimulation to the activity which meets needs and interests of the individual). In a definite situation the person's behavior depends on his interpretation and treatment of the situation. On the other hand, the character of treatment of the given situation, extent of knowledge about the situation will depend on interaction of the person with this situation.

For the scientific cognition of different mental phenomena and their functional mechanisms **medical psychology uses such methods:**

1. Method of observation.
2. Method of clinical interview.
3. Experiment.
4. Psycho-diagnostic examination.

One of the most typical ways of examination is **observation** of an object (a person, a group of people) pending the phenomena interested by an examiner will show themselves to be recorded and described. By means of this method the mental processes, states and properties of sick and healthy are studied. Mentality is studied under natural living conditions, and this study differs from an experiment because a doctor or a psychologist is a passive observer that has to wait for those phenomena he is interested in. The advantage of this method is that during the observation the natural

course of mental phenomena is not broken. The disadvantage of the observation is that it does not allow determining the cause of a certain mental phenomenon precisely, because it is not possible to take into account all interrelations of a mental phenomenon in the process of observation. Observation is carried out under usual living conditions: in families, at work, game, during studies, in a hospital ward. Independent activity, observation, reaction peculiarities of a patient, his relationship with other people are taken into consideration. Observation should be purposeful, following some certain tasks. In medical practice it allows to estimate the patient's sleep, appetite, mood, psychic activity, etc.

The interview reveals the associations interesting to the examiner on the basis of the empiric data which were received during real two-side contact with the patient. This method is needed for receiving information about the individual psychological peculiarities of the personality, psychological phenomena and psychopathological symptoms, inner picture of the disease and the structure of the patient's problem. It is also the way of psychological influence of the person, which is worked out directly on the basis of a personal contact between the doctor, the psychologist and the patient. The principles of clinical interview are unambiguousness, exactness and simplicity of formulations, adequacy, sequence, flexibility and impartiality of interrogation, verity of the information received. The success of the interview depends on the examiner qualification that presupposes the capability to establish the contact with an examined person, to give him an opportunity to express himself as freely as it is possible.

In the process of clinical interview, the patient's history and his complaints are taken. History taking permits to form an opinion about the character of the disease, its causes and development, peculiarities of its course and clinical manifestations. Taking a case history the doctor can reveal the mental state of the patient before the disease. He can also find out whether the patient was treated before and if so in what departments he was treated and how effective the treatment was. The case history allows the doctor to determine the attitude of the patient to his disease, the peculiarities of the psychological reactions to the disease. Interviewing the patient, the doctor both estimates the facts and has the opportunity to determine the psychological peculiarities of the patient. It is necessary to afford an opportunity for the patient to speak on his own about his life and disease. However, the interview with the patient should be guided by the doctor. It is very important to ask questions to the patient correctly and in the certain order and form. It is not recommended to inspire the patient these or other

sensations asking him questions (for example, it is sometimes enough to ask the patient whether he has pains in the heart region and he begins to feel them). Intimate questions about the patient's life should be asked with special delicacy. The doctor should take into account how attentively and thoughtfully the patient listens to his questions. Sometimes patients underestimate the severity of their disease and either they don't complain at all or alleviate the degree of its manifestations.

An experiment differs from observation because it presupposes the arrangement of a clinical situation which allows carrying out a relatively absolute control of variables which is impossible at observation. A variable is reality that can be changed in an experimental situation. One of the most important advantages of an experimenter over an observer is manipulation of variables. An observer is interested in any interrelation of phenomena, but in an experiment under certain conditions it is possible to introduce a new element and to determine whether this or that change in the situation takes place. An examiner expects this situation as a consequence of the change made by him, but an observer has to wait for the change which may not take place.

An experiment can be divided into 4 types: laboratory, natural, establishing and forming. The shortcoming of this method is that it is hard to arrange it in order an examined person not to know what is going on. Thus, an examined person can reveal constraint, diffidence, conscious or unrealized anxiety, etc.

On the basis of **the psycho-diagnostic examination** the hypotheses about the dependences between different psychological descriptions are checked. When their peculiarities are revealed in the sufficient number of the examined, it is possible to determine their interrelation on the basis of the proper mathematical procedures. The demands to both the psycho-diagnostic examination and the experiment are the same –variable control. Psycho-diagnosis as a field of psychology deals with the estimation of personality psychological characteristics.

The main methods of psycho-diagnosis are testing and interviewing. Their systematic expression is tests and questionnaires which are also called methods. The methods make it possible to collect the diagnostic information in the relatively short time, they give the general information about the person, about these or those of his peculiarities in particular (his intellect, anxiety, etc.), and they allow the making a quantitative and qualitative comparison of an individual with other people. The information received with the help of psycho-diagnostic methods is useful with regard to the selection of interference means, the

prognosis of its efficiency, development, contact, effect of this or that individual activity.

A test is a try-out, a task or a task system which helps to estimate the mental state or maturity of the examined. Psycho-diagnosis uses a number of experimental psychological methods or tests which help to estimate the functioning of both separate areas of mental activity and integrative formation such as temperament types, personality peculiarities and personal traits. There are verbal (language) and non-verbal (picture) tests. Two groups of tests - standard and project - are usually distinguished. The test directed toward estimation is called a standard test (maturity, creativity, aptitude tests). However, there are tests that are directed not toward the estimation indices, but toward the qualitative personality peculiarities. Project methods belong to this group of tests. They are based on the fact that the personality is realized through various manifestations of an individual including some hidden unconscious needs, conflicts, feelings. Thus the main thing is subjective contents and attitude that a test can cause in an examined person and it allows making conclusions about the personality peculiarities.

Following tests could make a good example of big variety of these methods.

For the perception examination such methods are used: "Sensory excitability", "Aschaffenburg's test", "Reichardt's test", "Liepmann's test".

For the memory examination: "Ten words test", "Memorizing numbers", "Story reproduction".

For the attention examination: "Schulte's tables", "Proof test", "Anfimov's tables", "Counting by Kraepelin".

For the thinking examination: "Classification", "Exception of notions", "Syllogisms", "Analogies", "Generalization tests", "Association experiment", "Pictogram".

For the intellect examination: "Raven's matrices", "Wechsler's test".

For the emotions examination: "Spielberg's test", "Luscher's methods of color choices".

And finally for complex examination of the personality "Rorschach's test", "MMPI" and "Topical apperceptive test (TAT)" are used.

Questionnaires are the methods containing a number of questions to be answered by an examined person in order to find out whether he agrees with them or not. There are questionnaires of an "open" type (answers are given arbitrarily) and of a "closed" type (answers are chosen from the variants given in the questionnaire).

Besides, there are questionnaires-surveys and personality questionnaires. Questionnaires-surveys give an opportunity to get such information about the examined person that doesn't show directly his personality characteristics. They are biography, interests, aims questionnaires, for example.

Personality questionnaires used for the evaluation of personality characteristics are divided into several groups:

a) Typological questionnaires worked out on the basis of personality type determination allow referring the examined to this or that type which differs in its peculiar manifestations;

b) Personality traits questionnaires which determine the expression of traits, i.e. stable personality signs;

c) Motives questionnaires;

d) Importance questionnaires;

e) Aims questionnaires;

f) Interests questionnaires.

The different methods of psychological examination can be used in combination, thus creating a full picture of a person's mental condition.

The last stage of experimental psychological examination necessarily contains a written conclusion based on the received data.

CHAPTER II

COGNITIVE PROCESSES OF THE PERSONALITY

For easy learning and investigation entire mental activity is conventionally divided into three spheres: cognitive, emotional and motor. Without this it is impossible to understand separate links of mental processes and symptoms of mental disturbances. But it is necessary to remember that mental processes and states and their unity with the personality constitute a whole. All mental processes are not isolated; they take place as a unity with the personality and are its expression. Cognition and evaluation of the reality are carried out through gnostic processes: perception, memory and thinking.

SENSATION AND PERCEPTION

Objectives: to learn the definition and structure of sensation and perception, the notion of analyzers.

Sensation and perception which represent the sensory sphere are the initial stage of cognitive activity. Together with representation, perception and sensation are the basis of direct active and concrete-image thinking and belong to the level of perceptive cognition. The process of perceptive cognition is inherent for both humans and animals, yet they are not identical. Sensation and perception as a mental act are formed as a result of individual development under the influence of training, education and experience. The process of their acquisition takes place from perception of simple signs and details of the surrounding objects to perception of more complicated phenomena as well as the inner state of the organism.

Sensation is the simplest mental act; it reflects some properties of the objects and phenomena of the environment as well as inner state of the organism which influence the analyzers of the person. Sensations permit us to tell the taste, color, weight, temperature of surrounding objects, as well as properties of their surface –

(roughness, smoothness) and the sounds they emit. We also feel the changes taking place in our body, the position and movement of its separate parts, the state of internal organs (pain, unpleasant feelings, discomfort etc.).

The physiological basis of sensation is a complicated activity of sense organs. I.P. Pavlov called this activity "analyzer activity"; the systems of organized cells, which perform the analysis, were termed "analyzers". The analyzer has three parts: peripheral (receptor), transmitting and central (cerebral). The receptor part transforms one kind of energy into neural process. The transmitting part, consisting of afferent and efferent nerves, helps a neural signal to reach the central part of analyzer and transmits back the impulses regulating analyzer's activity. The central part is a cortex region which processes data coming from the receptor.

Any sensation has its own qualities, strength, and duration. The quality of the sensation is its inner essence which distinguishes it from other sensations (e.g., noise, smell, shape). The strength of sensation is determined by its degree. The duration of sensation is the time during which the consciousness develops and stores the impression of the particular sensation.

When tired, excited, under the influence of noise and other outer unfavorable factors, physiological functions of the analyzers and psychophysiological state may change which results in inhibition and errors in perception with erroneous actions.

Classification of sensations

According to the place of the irritant:

a) exteroceptive (due to influence of the stimulant on the receptors, nerve endings on the surface of the skin and mucous membranes) – contact and distant;

b) interoceptive (caused by influence of the stimulant on the nerve endings which supply the inner organs and those located in the walls of the respiratory organs, gastrointestinal tract, etc.);

c) proprioceptive (associated with the signals which develop due to stimulation of the receptors located in the muscles, tendons, joints).

According to the organs where they develop they may be:

a) visual;

b) auditory;

c) cutaneous (tactile, temperature, pain);

d) olfactory;

e) motor or kinesthetic;

f) balance.

There are definite regularities which characterize sensations. An important feature is **sensation threshold**. It's considered to be

the minimal constant (value) of the irritant (stimulant) when sensation just appears. The smaller the constant of the irritant (stimulant) evoking sensation, the more sensitive are the analyzer organs to the irritant (stimulant). For example: out of all electromagnetic fluctuations the eye perceives wave-lengths of three hundred and ninety (violet color) to seven hundred and eighty (red color) millimicrons.

An important property of sensation is **adaptation**. Adaptation is gradual decrease of sensitivity to lasting strong irritants or increase of sensibility to weak irritants during a period of time. Adaptation is possible in all kinds of sensation, but more so in visual, tactile, temperature, gustatory and olfactory sensitivity. Adaptation is weaker to acoustic and pain sensitivity. An example of adaptation may be the gradual increase of night vision (adaptation to darkness). Transition from bright light to darkness hinders us to discern objects at first. Gradually the sensitivity of the eye increases and adaptation to darkness takes place.

Sensibilization is an increased sensitivity as a result of interaction of the sensations. In clinical practice, when sensitivity in one or several analyzers disappears partially or completely, sensibilization, that is compensatory increase in sensitivity as a result of interaction and training of analyzers, is important. Thus, the loss of vision and hearing can be compensated by development of other types of sensitivity (tactile, olfactory, vibration).

Synesthesia is a sensation in one of the analyzers after stimulation of another analyzer (e.g., unpleasant taste in some visual stimulants, color sensations at acoustic stimulants (music)).

A special role is played by **pain** – subjectively severe, sometimes unbearable, sensation which is due to very strong destroying stimulants. Pain warns about the danger. Experience of pain depends on numerous factors: concentration or distraction of the attention from the pain, expectation of pain, emotional state, personality characteristics, socio-moral orientation. The doctor should take these into account and try to create the conditions for the patient which will weaken the sensation of pain.

One of the necessary conditions of normal mental activity is a known minimum of stimuli which enters the brain from the sense organs. If a person does not receive the necessary amount of stimuli due to abnormalities of the sense organs, he falls asleep or becomes drowsy and does not remember anything that took place during this period of time. At sensory isolation, unusual mental states may appear. At first they are functional (reversible). When the period of the isolation increases, the changes may become pathological and psychosis may develop.

Perception is a mental process which consists in holistic representation of the objects and phenomena of the world at their immediate influence on the sense organs which is combined with the past human experience. The physiological basis of perception is interaction of different analyzer systems or separate parts of the same analyzer and formation of conditional reflexes to complex stimuli resulting in a more or less complicated image of an object or phenomenon.

Main properties of perception are entity, selectivity, constancy, comprehension, apperception and objectiveness.

Perception is always **whole**, that is an object or a phenomenon is represented as a whole of their properties and signs.

Selectivity is revealed when one object has advantages over other objects. The main object which is more important to observer at that time appears as a vivid figure, as well as all other objects and phenomena go to background.

Constancy is more or less long stability of separate properties *and* qualities of the objects irrespective of the noted changes which have taken place.

Comprehension is an understanding of the essence of the object, a capability to classify it, a generalization in the world, an association with the familiar objects.

Apperception is dependence of perception on the general content of the mental activity of person and his individual characteristics, on the past experience, interests, motives, profession.

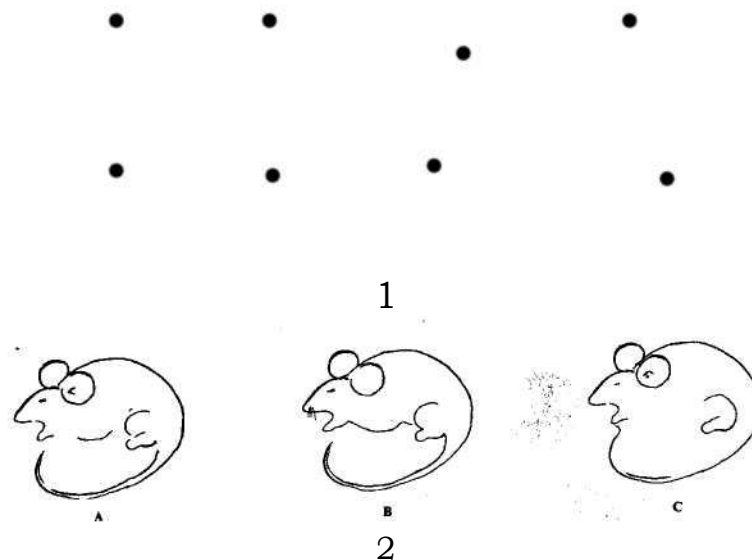
Objectivity is revealed in the act of objectification that is in the relation of the obtained information (images) to the world (object, phenomena).

Among complicated forms of perception, perception of time, space and motion are distinguished. Perception of time is representation of the duration, consequence and velocity of events or phenomena of the real world. The basis of perception of time is conditional reflexes. Prolonged periods of time are perceived, on the one hand, in the association with the processes which take place in the organism, on the other hand, in association with the rhythms of the natural phenomena. It was noted that the periods of time are evaluated subjectively, which maybe due to the interests and the character of the activity of the person as well as to the disease. The basis for perception of space is the knowledge of non-spatial properties of the objects through visual, vestibular, motor and cutaneous sensations. Together they allow the understanding of the relation of the body to the vertical, spatial location and distance to other objects. Perception of movement is representation of spatial

movement of the objects, which are defined by the distance from the objects, the speed of their movement or the movement of the observer.

Sensation and perception are characterized by sensitive liveliness (objectiveness, reality, liveliness, brightness), extra-projection (the image is transferred to the place of the objective stimulant) and absence of arbitrary changes in the perceived image (objectivity of perception).

There is an interesting peculiarity of perception. It finishes all figures and objects which are not complete automatically. For example when there are 4 dots on the paper we unconsciously see a square or a trapezoid (1). Or if there's an unfinished picture we'll complete it according to the unique characteristics of our own perception (2).



This effect was studied by gestalt psychologists and is called Zeigarnik effect.

With the age, knowledge and experience, sensation and perception become more complicated, pithier, close to the true essence of the objects and phenomena of the reality. Besides, the culture regulates the activity of the brain, adding different peculiarities of disposition which characterize the members of the definite group. Perception of the world, life, death varies in different cultures.

Sensation, perception and emotions are closely connected with each other. On the one hand, some sensations (e.g. of smell, color) can cause definite emotions; on the other hand, the mood of the person defines the brightness and strength of the perception.

Fantasy is the creation of new imaginary connections based on empiric material of previous impressions. Fantasy can be:

- a) recreative;
- b) creative.

Recreative fantasy creates a chain of notions on the basis of a certain plan (a geographical map). Creative fantasy creates new, original ties of notions and thoughts.

Perception in small children is characterized by brighter emotions especially to colored moving objects. The children of an early age (aged 1 – 2 years) can orient to the place of the objects; the visual evaluation of small distances develops very quickly. In an early childhood, auditory perception also develops very quickly, which is important for general development of the language.

In children under school age we observe further perfection of visual, motor and auditory sensations. It is very important that active development of the ability to distinguish distant objects took place during concrete pithy actions.

Auditory sensitivity in children is characterized by significant individual differences. Reduction in hearing in children can be unnoticed as the child who hears badly can guess the pronounced by the movements of the lips and the expression of the face. It is very important to know if the child hears well because at insufficient hearing acuity, mental and linguistic development may delay.

In children under school age, the accuracy of movements and the rate of development of motion skills increase. But, if they can easily perform large movements, which do not require great physical strain (walking, running, dancing), smaller accurate movements are difficult for them (writing, drawing, sewing).

Cutaneous sensations develop together with motor ones. Children under school age develop accuracy in perception of the shape, size and texture of the object at touching. Perception develops intensively together with sensations. The children under school age are more accurate (when compared with the children of early age) in representation of the objects and phenomena which they perceive. Games, observations, excursions, drawing are important for development of perception in children. The game forces the child to perceive the peculiarities of different objects more accurately and consciously. Designing, drawing, modeling make them examine and investigate the objects.

In general clinical practice we can observe the following **disturbances of sensation and perception:**

1) **Quantitative:**

a) hypoesthesia – decreased subjective brightness and intensity of sensation and perception. Physiologically normal is hypoesthesia

observed as reduced sensitivity of an analyzer to definite stimulants (at its stimulation and general reduction in the tone);

b) anesthesia – complete switching off sensations and perception (blindness, deafness, absence of sensitivity to pain);

c) hyperesthesia – increased perception of a stimulant which was neutral before;

d) agnosia – disturbance of visual, auditory, kinetic perception at local lesions of the brain cortex (the patients perceive an object or its parts but cannot call it).

2) **Qualitative:**

a) illusions – twisted sensation and perception of real objects and phenomena in which comprehension of the images of the latter does not always correspond to the reality and can have other content. They could be physical (appear as a result of different physical properties of objects and substances – light refraction on the border of two media, mirage), physiological (due to physiological peculiarities of the analyzer functioning – feeling of movement of the surrounding objects after the train has stopped), mental (develop as a result of affective changes in the consciousness which cause the changes in other mental functions);

b) hallucinations – perception of non-existing objects and phenomena without stimulation of the appropriate receptors. They are classified by: analyzers – sonic (sounds, voices), visual (objects, creatures), gustatory, olfactory, tactile; complexity – simple and complex; origin – true and pseudohallucinations;

c) paresthesia – sensation of pricking, flash in different areas of the body usually caused by organic or functional disorder of neural conductors;

d) senestopathy – unusual, extremely unpleasant sensations from the inner organs and different parts of the body without any disease in this organ (sensation of softening of the bones, collapse of the lungs, hole in the stomach and other bodily illusions and hallucinations);

e) visual psychosensory disorders (metamorphopsia) – distortion in perception of the objects with preserved understanding of their significance and essence as well as critical attitude of the patients to them (dysmorphopsia – distortion in the shape of the object, macropsia – enlargement of the objects, micropsia – diminished objects);

f) intero- and proprioceptive psychosensory disorders (disturbances in the scheme of the body) – feeling of elongation, shortening, curving of the extremities, head, inner organs. They are usually a part of depersonalization, dysmorphophobia and hypochondria syndromes.

Methods of perception study

The sphere of sensation and perception is studied with observation, introspection, questioning and use of different examples. At specialized hospitals (neurology, ophthalmology, ENT), various equipment for investigation of acuity of sensation and perception in different analyzers are used. At psychological study, perception is examined with different charts and pictures (illustrations of objects, their outlines, pictures with superimposed outlines of the objects, schemes with visual illusions, pictures "figure and background", "mysterious" pictures).

To examine the vision and visual perception special charts and technical means are used.

To study auditory, cutaneous and vestibular perception audiometer, Weber's compasses are used. To study stereognosis (touching the object without looking at it), it is necessary to have different objects (models of cars, animals, house-hold utensils).

CHAPTER III

THINKING AND SPEECH

Objectives: to get acquainted with the structure of thinking, its variants and types, normal and deviant conditions, methods of examination.

Thinking is a mediated generalized reflection of reality in the human mind with all its important ties and connections. Thinking is always based on a sensitive reflection of the world. The properties of things and phenomena, connections between them are reflected in a generalized form as the type of notions, laws and essence. That is the images of sensitive cognition are the material only with the help of which reflection can arise on the level of thought. It always develops as a result of the knowledge acquired by a human being.

In practice, thinking as a separate mental process does not exist, it exists invisibly in all other cognitive processes: perception, attention, memory, etc. Thinking is a generalized cognition of reality where the words, language, function of analyzers are most important. With development of psychology, language, playing and studying activities one can follow gradually development and improvement of thinking with' all its features, inherent in the given historic era and appropriate individual conditions of development in a definite microenvironment (structure of society).

The material embodiment of thinking and the tool for thought exchange is a speech with its grammar and vocabulary.

Basic mental operations

Analysis is a disassembling of a whole into parts in thoughts or mental apportionment of its aspects, actions and relations from a whole.

Synthesis is a mental assembling of the parts, properties, actions into the whole. Synthesis is not a mechanical unity of the parts and thus it does not result in their summing.

As a rule, analysis and synthesis are carried out together, rendering assistance to more thorough cognition of the reality.

Comparison is a determination of similarity or difference between subjects and phenomena or their separate signs. While considering them in different aspects and combinations we get to know the subjects, object and phenomena better and more thoroughly.

Abstraction permits to pick out certain elements from the wholes and concentrate on them, thus making reality more schematized.

Generalization is a selection of general and essential that is typical for the definite number of subjects and notions.

Concrete definition is a transition from the abstracts to the individual real subjects and phenomena.

Classification is a division and their grouping of objects on the basis of certain elements.

Systematization is division with a following grouping (unification) but not of separate objects as in classification but in groups or classes.

There are three categories of thinking.

Concepts are the reflection in the mind of general and important properties of a group of initial objects or phenomena of reality. Concepts are the highest form of the reflection of reality as they reflect the general, most important, regular properties of objects and phenomena. Definite concepts reflect the ties and relationship between objects and phenomena. Abstract concepts do not reflect real objects or phenomena. They reflect only certain properties of objects combining into notions on the basis of abstractions of the given objects.

Judgment is a reflection of links between the subjects and phenomena of reality or between their properties and signs. Judgment is a result of somebody's expression about something. They affirm or reject any relations between subjects, events and phenomena of the reality.

Conclusion is a link between thoughts (notions, judgments) resulting in getting different judgment from one or several judgments, or withdrawing it from the content of initial judgments.

Induction and deduction are the means of making conclusions which reflect direction of thought. **Induction** is movement of thought from a single statement to general knowledge. Inductive conclusion results in general judgment. **Deduction** is movement of knowledge from more general to less general.

Classification of types of thinking:

1) **By the character of the aids used:**

– Visual aid is a material for thinking activity presented in a visual, specific form (plaster cast, laboratory equipment and others).

– Semantic aid is a material for thinking activity presented in a sense, symbolic form (operating with numbers, verbal description of the situation).

2) **By the character of duration of the cognitive processes:**

– Intuitive thinking is performed as «gripping» the situation, provided decision without information about the ways and conditions of its performance.

– Analytical thinking is performed by means of logical conclusions leading to the correct understanding the main principle of appropriateness.

3) **By the character of the tasks solved:**

– Practical thinking takes place if the person has to solve the definite situation with its characteristic features and conditions.

– Theoretical thinking takes place if the tasks are being solved by the person in general and they submit to the search of the main appropriateness, rules, determination of the type of situation.

4) **By functions:**

– Creative thinking is reproduction of new ideas, search of the original solving the task.

– Stereotype thinking is reproductive decision of typical tasks according to the earlier acquired scheme.

Depending on the content of the task being solved there are **three kinds of thinking:**

a) **Visually-active thinking** is thinking where solving the task includes outer motive tests. It is characteristic for this type of thinking that the task is solved with the help of real, physical transformation of the situations, approbation of the properties of the objects. At preschool age (under 3 years) thinking is visually-active in general. It is often applied in adults in every day life and is necessary if it is impossible to provide the results of any actions beforehand (the work of tester, constructor).

b) **Concrete-graphic thinking** is connected with operating images. This form of thinking is completely and extensively represented in children of pre-school (4-7 year old) and young school ages, but in adults it occurs in the people whose professions are connected with clear and lively conception about different subjects or phenomena (writers, artists, musicians, actors).

c) **Abstract-logical thinking** operates on the base of linguistic means and represents later stage of historic and ontogenetic development of thinking. This thinking is characterized by the use of notions, logical constructions which sometimes do not have a graphic description (honesty, pride and others). Due to verbal-logical thinking a person can establish more general

appropriateness, provide for the development of processes in the nature and society, to generalize different visual materials.

From the age of 8-10 years one can clearly observe development of abstract-logical, conceptual thinking and up to 14-16 years the ability to form the highest form of abstraction, complex judgments and conclusions is being formed and they are the basis of consciousness and self-consciousness.

It should be noted that all the types of thinking are closely connected with each other. Therefore while trying to determine the type of thinking, one should remember that this process is always relative and conditional. The development of all the types of thinking and their unity can provide correct and quite complete reflection of reality by the man.

Quality of thinking.

- **Depth of thinking** is an ability to embrace the task as a whole without missing necessary separate moments at the same time. Depth of thinking is expressed in the ability to investigate the essence of complex questions. The quality opposite to the depth of thinking is superficial knowledge if a person pays attention to small things but he does not see the main point. Independence of thinking is characterized by the ability of the man to propose new tasks and find out approaches for their solving without asking for help.

- **Flexibility** of thought is expressed in freedom from fettering influence of the past, in ability to change actions quickly in case of change of situation, to find out new, original unknown ways and methods of solving the tasks..

- **Speed** of thought is necessary, especially in the cases if the person has to make definite decisions quickly (for example, during accident, operation). It is necessary to take into account inhibition of thinking by negative emotions.

- **Consistency** is systematic character and strict logic.

- **Criticism of mind** is the ability of the man to evaluate personal and other ideas objectively, to check up all the propositions and conclusions thoroughly and in detail. All these properties constitute productivity of mind. The advantage of using visual-active, visual-image and verbal-logical types of thinking refers to the individual features.

Thinking is closely connected with language and speech.

Language is a system of signs which are means of communication, thinking activity, method of expression of person's self-consciousness, passing on from one generation to another and storage of information.

The language exists and is realized through speech. One can distinguish outer speech (oral, written) and internal speech (about oneself) with observation of ideomotor movements of muscles of speech organs, though they do not produce sounds at this time. Speech should be considered as «immediate effectiveness of the thought», as practical use of language.

The language is being formed in the historic development as a system of communicative means. Thinking and language are not identical (the same thought may be expressed in different verbal forms). One can distinguish expressive speech (for communicative use), written, internal speech (when the thought is formed and exists, it appears later than loud speech in children).

Disorders of speech:

- Ankyloglossia is incorrect pronunciation of separate sounds and phrases.

- Disarthria is impossibility of accurate articulation when speaking.

- Aphasia is a disturbance in perception of spoken language.

- Alexia is a disturbance in perception of written language.

- Agraphia is a disturbance of writing.

- Stammering is a disturbance of fluency, difficulties in pronouncing sound combinations.

- Logorrhea is a fast, non-stoppable speech.

There is a big variety of **thinking disturbances** occurring in general practice, but they could be categorized in 3 groups. Every group is based on the notion of associations. Association is one thinking operation in a unit of time. This notion is totally artificial and abstract and is implemented for easing the classification process.

1) Disturbances by speed and flexibility of associations:

- Acceleration of thinking (increase of associations in a unit of time).

- Deceleration of thinking (decrease of associations in a unit of time).

- Stop of thinking ("Schperrung").

- Circumstantiality of thinking is inability to move from one line of associations to another.

2) Disturbances by orderliness and purposefulness of associations:

- Incoherence of thoughts (there is no relation between thoughts and sentences, and even words and syllables).

- Verbigeration (stereotype repetition of words and phrases).

- Paralogical thinking (conclusions are made not according to the laws of logic).

- Ambitendency of thinking (simultaneous being of two alternative thoughts).
- Pathological philosophizing.
- Pathological detailed elaboration (inability of picking out the most principal and important, sticking on separate details).
- Pathological symbolism (conclusions which are built on occasional associations).
- Neologisms (creation of new words which are understandable only for the creator).

3) **Disturbances by content of formed associations:**

- Obsessive thoughts occur without the person's desire and against his wish. The patient assesses them in a critical way, fights against them but can not make effort to avoid them.
- Overvalued ideas are the judgments occurring as a result of real situation but have disproportionate, prevalent meaning in thinking due to the strongly pronounced emotional coloring. These thoughts would not be incorrect if the patient did not pay great attention to them. Pathology occurs because of strong exaggeration of the importance of the thought. One of the variants of these thoughts is hypochondriac state (hypernosognosia) when the patient overestimates real unhealthy sensations and considers being ill with a very serious and dangerous disease. These patients constantly visit doctors, ask for treatment, change drugs all the time.
- Raving ideas are produced by a psychotic mind. They could seem like truth or be absolutely fantastic and weird. It's common to pick out paranoial, paranoid and paraphrenic raving.

Methods of thinking examination

When talking to the patient one should pay attention to the speed of associations and their features. It is necessary to give the patient possibility to talk freely about everything he wants including every abstract topics.

A number of experimental psychological methods can be used for examination of thinking.

Generalization of notions. Four initial notions are proposed and the task to define them by one word is given. In such way ability to synthesize is determined.

Exclusion of notions. Four or five words are proposed and it is necessary to find the word inappropriate in meaning to the others. It gives the possibility to judge about the ability to analyze.

Methods of comparison. The patient is given the task to find out similarities and differences between two notions.

Explanation of figurative sense of proverbs gives the possibility to evaluate the level of thinking and intellectual development.

Associative experiment. 20-25 words prepared beforehand are proposed to the patient, and he is to answer in one word after 2-3 seconds what are those words about. This method gives the possibility to judge about the speed of thinking, content of dominative notions, and qualitative peculiarities of the person.

Explanations of topical pictures. The patient is given a postcard with a reproduction of a picture, and he is to retell its content. The method checks up quick wits of the patients, their ability to emphasize the essence and emotional reaction.

Establishment of sequence of events. Using a series of 3-6 pictures of some event the patient have to reproduce a connected narrative. This method is intended for revealing quick wits of the patients, ability to understand the links of events and make some sequent conclusions.

Classification. For examination it's necessary to use a set of cards with pictures of different objects or their verbal signs. A set of cards provides different possibilities to solve the task. The patient is proposed to isolate one picture which is inappropriate in meaning to three ones. This method is used for examining the level of processes of generalization and abstraction, sequence of judgments.

Pictograms. The patient is given a blank sheet of paper, pencil and is proposed to draw a sketch for memorizing the words. This method gives the possibility to study individual thinking productivity in patients. Little determination and regulation of thinking processes by condition of experience gives the possibility to find out disturbances of thinking in patient.

CHAPTER IV

ATTENTION, MEMORY AND INTELLECT

Objectives: to learn the role of attention and its liaisons to other mental functions, to get acquainted with the notion and types of memory and intellect, to get the overview of their disorders, methods of examination.

Human sensory organs are permanently influenced by a great number of irritants. Nevertheless, not all the influences reach consciousness simultaneously. Something having prior significance for a person, satisfying his needs and interests is selected. All the rest is either perceived indistinctly or completely ignored. Selective nature of psychic activity is defined as **attention**. Attention is observed as concentration of consciousness on a chosen object or phenomenon, as a result this object or phenomenon is reflected clearer. In contrast to cognitive processes (sensation and perception) attention does not have its own content. It characterizes the dynamics of psychic processes. E.g. if a student does his lesson, he adopts some material, thinks over something he has read, picks out the main idea and tries to remember it. Through this an activity of cognitive processes becomes apparent, i.e. perception, thinking, memory. For a long while the student concentrates on one subject and ignores the others. Strong irritants can distract him from his educational activity, but he voluntarily turns back to the subject in question. This purposeful cognitive process is an example of attention.

Attention is reflex in its nature. Its direction to the object is a specific response of an organism to some changes in the environment, which are of importance for a person. I.P.Pavlov considered specially directing sensors analyzer to perception of object, which causes creating a nidus of optimal irritation in the corresponding area part of cortex to be the basis of attention. As a result temporary nervous connections are easily formed. At this time neurons in other areas of cortex are inhibited. Irritations which get into inhibited areas do not create temporary connections,

and a man does not notice them. A nidus with optimal irritation is intensified by concomitant irritants and inhibits reactions which are not connected with activity of dominating centers.

Kinds of attention.

Involuntary attention is caused by objects and phenomena, which influence a man with their brightness, force or dynamism.

Voluntary attention is directed by a man with volitional effort according to conscious purpose. This kind of attention occurs when a man tries to fulfill some tasks.

During his activity a man can become engrossed in his work to such extent that there will be no need for directing his attention. In this case voluntary attention gains some new features – being conscious and purposeful it absorbs a man at the same time and supports itself involuntarily. This attention is called **post-voluntary**.

A special kind of attention is **awareness**. It's like a beam of active attention which enlightens for the consciousness some aspects of external world or internal processes to be perceived brightly and sharply. In the field of awareness could be only one object – it could be a phenomenon, a process, a thought or a thing; and this "beam" is moving constantly to cover the multiplicity of processes. Often we are much more aware of external events and pay little attention to the internal, intrapsychic events which lead us to the disorder of psychic homeostasis and further development of neurotic states.

Features of attention. Attention is characterized by several features: volume, distributing, switching, concentration and stability.

Volume of attention is quantity of objects or phenomena which a person simultaneously keeps in his mind. This quantity depends on the content and on personal interest. If perceiving is new, not more than one object is reflected in human consciousness at the same time. If attention is directed to known objects, human passive attention can hold a grip on a considerable number of objects at the same time. Usually 7 ± 2 objects are reflected in consciousness.

Distribution of attention is defined as human ability to perform two or more actions at the same time. It is possible, because a man can voluntarily switch his activity from one object to another. The level of distributing depends upon a person's experience, automation of activity. The more we're skilled in some process the less awareness it requires.

Switching of activity is human ability to change voluntarily and consciously direction of his activity. Physiological basis of switching of activity is shift of nidus of optimal irritation in cortex.

Directing attention to the chosen object, a person distracts from other objects and phenomena. This insusceptibility of some objects and phenomena is the condition of successful perception of a chosen object.

Nevertheless, in the process of education or study the negative **distraction** can be observed, i.e. change of direction of attention caused by some outer irritants. The reasons for distraction are: weak human will, inability to guide one's activity, increased excitability, lack of interest to the object. Psychological basis of distraction is negative induction of irritation and inhibition in cortex. "Distraction" should not be mixed with "switching", for the latter voluntarily, consciously and purposefully.

Concentration of attention is a quality opposite to distraction; it manifests itself in human ability to direct attention to a certain object for comparatively long time, in spite of influence of other irritants. Concentration depends on motivation of activity and individual features of a person. Concentration on a definite object can be measured according to some scale. High concentration causes absorption in activity which is being done. Concentration changes in time, i.e. periodically increases and decreases. This change is called fluctuation of attention. It influences labor productivity, direction of activity, precision of perception.

Stability is an important property. A person having a stable attention can concentrate on one object for a long time.

Absent-mindedness is a not very useful feature. Attention of an absent-minded person is permanently wandering from one object to another, never stopping for a long while. Among adults absent-mindedness can be regarded as a result of fatigue, somatic or mental disease. Among children absent-mindedness can be observed more often. It can be overcome by durable education.

Deviations of Attention

In clinics among different kinds of deviations increased distraction is more frequent. In this case a patient has difficulty in concentrating on one object or activity. His attention is unstable, outer irritants, even of less interest, can distract the patient's attention and disturb his activity. A patient's distraction can be so high that he can not concentrate on a doctor's questions, permanently "jumping" from one thought to another.

Distraction accompanies increased tiredness, general weakness caused by exhaustion of nervous system, durable and intensive emotional strain, too difficult mental activity. It can be a result of

infection, intoxications, injuries, tumors, vascular sclerosis of a brain.

When frontal lobes of cortex are affected, ability of switching attention decreases. Switching can be inhibited to such extent that a patient repeats some action many times not even noticing it. In clinic opposite phenomena are also observed when ability to switching attention increases. This deviation characterizes maniac patients.

Frequently somatic, infections and other pathologies may result in increased exhaustion of attention, i.e. decrease of stability and volume of attention.

Memory is a form of mental reflection of the reality and with its help earlier acquired data; knowledge and events are fixed, kept and recreated. The human memory contains two types of information: specific memory, which has been accumulated in the process of evolution for many thousands of years, which is determined by unconditioned reflexes and instincts, and hereditary and acquired memory in the process of human life realized in conditioned reflexes.

The basis of the human memory and its physiological mechanisms contain the system of conditioned reflexes, forming temporary connections or «traces», processes occurring in the nervous system which were studied in detail by I.P. Pavlov and his scientific school.

Of all the present theories of memory chemical theory has the biggest influence. According to it, impulses coming from the periphery toward the brain cortex cause changes in the chemical composition of the nervous cells; the RNA plays a major role in the processes of encoding and decoding of data as well as placing it for storage.

The processes of memory are following:

- 1) **Memorizing** (fixation) – acquisition of information;
- 2) **Retention** – the process of keeping information;
- 3) **Reproduction** – the process of getting information from the storage to use;
- 4) **Forgetting** – forcing out the information which lost its urgency to the latent layers of memory or perhaps the complete destruction of all the information.

Types of memory.

According to participation of analyzers and functional systems, there is visual, aural, olfactory, sense, tactile, emotional, motor, mixed memory (memorizing images, sounds, smell, touches, emotional stress, movements, complex action, etc.).

According to participation of the signal system: image memory (the first signal system is the memory for the image, sounds, smell, activities, etc.); verbal-logical memory (the second signal system) is the memory for the words, judgment, etc.

According to the mechanism of memorizing: mechanical (mechanical memorizing of information – phone numbers, definite numbers, material without support of semantic association) and verbal-logical (memorizing information with support of semantic meaning and internal logical connection).

According to the degree of involvement of active attention and volition: involuntary (involuntary memorizing and reproducing) and voluntary (purposeful memorizing and reproducing).

According to the place and role in the structure of activity: operative (short storage of information which is necessary for achieving the definite aim and loses its urgency after achievement of the task), short memory (memorizing for a short time) and prolonged memory (memorizing knowledge, abilities and practical skills for a long time).

According to the degree of use of memorizing means: mediated and immediate memory.

At each age the memory has its own **peculiarities:**

- In children under 1 year – image memory (memorizing bright stimuli and images of relatives, their recognition);

- In children aged 2-3 years – improvement of image memory, appearance of verbal-logical memory;

- At the age of 4-5 years – rapid development of verbal-logical memory, voluntary memorizing and reproducing, richness of content of memory images, using not only perceptions but notions;

- From 14-15 to 25-30 years – the highest level of development of memory;

- After 30 years – gradual reducing ability for mechanical memorizing and the highest level of logical memory;

- After 40-45 years – evident prevalence of logical memory;

- After 60 years – decreasing mechanical and verbal-logical memory for the current events; everything that happened at the younger age is recalled better. This peculiarity is called a law of reverse motion of memory (T. Ribot, 1881).

Individual peculiarities of memory play a great role in memorizing processes. For example, general level of its components and properties, prevalence of aural, visual and other memories, its training, daily and age dynamics of processes of memory (especially fixation and reproduction), change of image and verbal-logical memory depending on the state of health, interest, emotional

condition, personal meaning of information, figurativeness of the material and others varies greatly in each person.

Properties of memorizing:

- Simple events in life accompanied by strong feelings like exultation, fear of rage are memorized quicker and kept for a long time;

- Complex but less interesting events which are emotionally neutral are memorized more slowly and are kept for a longer period than emotionally significant ones;

- Better facilitation to the process of memorizing and reproducing results in increasing concentration of attention to the definite information;

- When memorizing a quite big piece of data, its beginning and end are recollected in mind quicker ("edge effect");

- It is important for associative connection of impressions and their reproduction whether they are a logically connected in a whole or they are separate elements;

- Strange, weird and unusual impressions are memorized better than common ones.

Some tips for memory improvement:

1) Defining which kind of data (audio, visual or kinesthetic) you memorize the best and then using mainly of that data type supported by other types.

2) Understanding of the text, formulas, pictures and other material.

3) Clarity of aim and connection of the material learned with earlier acquired content and the practical performance.

4) Active logical processing of the material includes making a plan of the text, expressing its main idea, joining data in groups and categories, selecting their titles, establishing different logical connections within this material and connections of this material with the other;

5) Positive motivation for the data memorizing.

6) Rational use of illustrative material (pictures, drawings, diagrams and others);

7) Connection of the memorizing process with bright emotional states.

8) Rational organization of revising in time, for example, 5-6 times at the first day, 4 times at the second day, 2-3 times at the third day, change of methods of revision (individually, in chorus, etc.), partial change of revision methods.

9) Implementation of self-control for evaluating the material that has been poorly acquired.

10) Usage of the material being studied for solving tasks and activities of different types.

Memory disorders.

a) Quantitative:

- Hypermnnesia is a short extreme increasing of involuntary reproduction; it occurs in feverish and hypnotic conditions and in maniacal patients.

- Hypomnesia is an extreme weakening of memorizing (fixation) or reproducing of past events.

- Amnesia is an absence of recollections about the past limited by the definite period of time or the situation.

Amnesia could be fixative, anterograde, retrograde and mixed.

b) Qualitative:

- Paramnesia is a disturbance of memory when some fictional recollections appear (pseudo-reminiscences and confabulations).

- Cryptomnesia is a distortion of memory, which is found in decreasing or disappearing difference between the events corresponding to reality and seen while dreaming, heard or read. In some cases the heard, read or seen while dreaming is recalled as happened to the patient (associative recollections); appropriation of somebody else's ideas refers to this disturbance. In the other cases, on the contrary, real events are recalled as the heard, read or seen while dreaming (estranged recollections).

Intellect is a system of all cognitive abilities of the person. That is an ability for cognition and solving the problems which determines success of any activity. Intellect includes experience, acquired knowledge and ability to its quick and expedient use in new situations which were not met before and besides in the process of solving complex tasks.

One can **distinguish three forms of intellectual behavior:**

1) Verbal intellect is keeping the vocabulary, erudition, ability to understand reading;

2) Ability for solving the problems;

3) Practical intellect which includes ability to adjust to outer circumstances.

The structure of practical intellect contains process of adequate perception and understanding the events, adequate self-esteem and ability to act rationally under new circumstances. Intellectual activity is more complex sphere of mental activity which includes some cognitive processes. However, intellect can not be considered just as a summary of these cognitive processes. Attention and memory are prerequisites for the intellect; however, they are not completely comprehensive for understanding the essence of intellectual activity and can not be replaced by thinking.

Disturbances of intellect

Infantilism is a universal or partly physical and mental retardation causing delayed maturity of judgements, infantile naivety, emotional instability and increased influence of emotions on thinking.

Oligophrenia (mental deficiency) is underdevelopment of intellect due to the causes present during the intrauterine period or in childhood under the age of 2 years. There are 3 degrees of oligophrenia – moronity, imbecility and idiocy.

Dementia is an acquired defectiveness of intellect which is characterized by inability of acquisition of new knowledge and earlier acquired knowledge, skills and hypomnesia. Dementia could be global or lacunar.

Methods of examination

Examination of attention. Change of a patient's attention can be noticed with a naked eye, but experiments and psychological research supplies more precise data.

For studying the stability of attention psychologists use a special table. Right checked column is covered with a stripe of paper checked the same way. Using only vision a patient is to follow each line and mark its ending with a corresponding number. The stripe having been taken off, it is compared with some standard and the number of mistakes is put down. For patients with greater decrease of attention a table with fewer lines can be used.

For a research of volume and stability of attention they use a table on which 17 blue and 29 red confetti are stuck in disorder. A patient is to count confetti not using a pointer.

Switching of attention can be tested with a special table. There are three tests. The first test is to show with a pointer all even numbers in progressive order from 2 to 24, marking spent time. The second test is to show light numbers in regressive order from 21 to 1. The spent time is marked. The third test is to show alternately black numbers in progressive and light ones – in regressive order. The time spent for the third test is larger than the sum of the time spent for the first and the second tests. This difference is an index of switching rate.

There are some other methods of studying attention, e.g. proof-reading correction test (Burdon's test, Anfimov's table). A patient's task is to cross out some given letters (e.g. A, M, K, P) from a given set of letters. Not only missed or wrongly crossed out letters count, but also the time spent for fulfilling the task. Spent time and quantity of mistakes denote stability of attention.

Examination of memory

The condition of memory is studied by questioning the patient. It helps to find out whether the patient calls things by their right names (year, month, date), if he knows the place where he is and who is close to him, if he says his age, date of birth in a proper way.

Amnesic disorientation connected with disorders of memory should differ from disorientation observed against a background of impaired consciousness and it is usually accompanied by torpor and other disturbances. While studying memory about the past events besides questions concerning different periods of the patient's life, the dates which are sometimes difficult to check up, it is necessary to examine memorizing well-known historic dates more or less remote in time, events in recent times (circumstances of hospitalization, etc.), events preceded the disease or trauma. Severe disturbances in memorizing of current events, fictional recollections (pseudo-reminiscences and confabulations) are found out in questions concerning the recent events ("Where were you yesterday?" or "What have you done today?", "Whom did you meet?"). Taking into account instability of the content of fictional recollections one should repeat the same questions later in the conversation. With such examining the primary content of the answer usually changes.

Visual memory includes memorizing linear geometrical figures (F.E.Rybakov), simple and more complex drawings. The patient is proposed to look through attentively for 10 seconds and memorize geometrical figures and then find them among the figures represented in the other chart. The patient usually memorizes 5-6 figures. Memorizing the objects in the charts is investigated by the same way.

Oral memory is the memorizing of numbers, words and sentences by hearing. The patient is proposed to listen to the numbers attentively, memorize words and sentences and repeat them. It is necessary to read words slowly and clearly. The studies are recommended to start from simple digits, then come to two-digit numbers, three-digit numbers and so on (it concerns memorizing words with different number of syllables). The patient is to read the proposed material for memorizing just once. The necessity of repeated reading points to hypomnesia.

Memorizing 10 words (according to A.R. Luria) – the patient is read 10 words and proposed to repeat them. The exercise is repeated 5 times and in 50-60 minutes the patient is asked to reproduce the words he has memorized, The chart of the results is made normally, about 9-10 words are reproduced by the third repetition. It allows to judge about the condition of the memory,

stability of attention and emotional attitude of the patient to the test.

Reproduction of stories – after reading and listening to a short story the patient retells its content orally or in writing. The method allows checking up the condition of memory, stability of attention and logical thinking.

Examination of intellect

The studies of intellect according to Wechsler – this method consists of two groups of subtests (verbal – 6 and non verbal – 5). The peculiarities of the answers in every test are taken into account, and then the coefficients of verbal, non verbal and general intellects are calculated.

Raven's charts – this test consists of 60 charts (5 sets). Every set of charts contains a task of increasing level. The correct solution of every task is evaluated as 1. After it the total number of points in all the charts and separate series is calculated. The result is considered as index of intellect level, mental productivity of the patient.

CHAPTER V

EMOTIONS AND FEELINGS

Objectives: to learn the emotion's structure in normal state, types of feelings and to get the overview of their disorders, methods of examination.

Emotions are the subjective states of man and animals, which arise up under the action of external and internal irritants and expressed as a direct experiencing (satisfaction or not, fright, gladness, anger ect).

They are acting important part in the teaching process (gaining vital experience). Executing the role of negative or positive reinforcement, emotions are instrumental in making of biologically active forms of behavior and removal of reactions, losing the biological value. Thus, emotions are the method of increase of adjusting possibilities of organism, and also one of main mechanisms of the internal regulations psychical activity and behavior, necessities of organism directed on satisfaction.

Human's emotions has a social determination. They are existed under the influencing of morality and law rules of certain social-economy formation.

So highest forms of emotions arise up on the basis of social (morality) and spiritual (esthetic, intellectual) necessities.

Classification

Basic and complex categories, where some are modified in some way to form complex emotions (e.g. Paul Ekman). In one model, the complex emotions could arise from cultural conditioning or association combined with the basic emotions. Alternatively, analogous to the way primary colors combine, **primary emotions** could blend to form the full spectrum of human emotional experience. For example interpersonal anger and disgust could blend to form contempt.

Robert Plutchik proposed a three-dimensional "circumplex model" which describes the relations among emotions. This model

is similar to a color wheel. The vertical dimension represents intensity, and the circle represents degrees of similarity among the emotions. He posited eight primary emotion dimensions arranged as four pairs of opposites. Some have also argued for the existence of meta-emotions which are emotions about emotions. "**Meta-emotions**".

Another important means of distinguishing emotions concerns their occurrence in time. Some emotions occur over a period of seconds (e.g. surprise) where others can last years (e.g. love). The latter could be regarded as a long term tendency to have an emotion regarding a certain object rather than an emotion proper (though this is disputed). A distinction is then made between emotion episodes and emotional dispositions. Dispositions are also comparable to character traits, where someone may be said to be generally disposed to experience certain emotions, though about different objects. For example an irritable person is generally disposed to feel irritation more easily or quickly than others do. Finally, some theorists (e.g. Klaus Scherer, 2005) place emotions within a more general category of 'affective states' where affective states can also include emotion-related phenomena such as pleasure and pain, motivational states (e.g. hunger or curiosity), moods, dispositions and traits.

Theories of emotions

Theories about emotions stretch back at least as far as the Ancient Greek Stoics, as well as Plato and Aristotle. We also see sophisticated theories in the works of philosophers such as René Descartes, Baruch Spinoza and David Hume. Later theories of emotions tend to be informed by advances in empirical research. Often theories are not mutually exclusive and many researchers incorporate multiple perspectives in their work.

Somatic theories

Somatic theories of emotion claim that bodily responses rather than judgements are essential to emotions. The first modern version of such theories comes from William James in the 1880s. The theory lost favour in the 20th Century, but has regained popularity more recently due largely to theorists such as John Cacioppo, António Damásio, Joseph E. LeDoux and Robert Zajonc who are able to appeal to neurological evidence.

James-Lange theory

William James, in the article 'What is an Emotion?', argued that emotional experience is largely due to the experience of bodily changes. The Danish psychologist Carl Lange also proposed a similar theory at around the same time, so this position is known

as the James-Lange theory. This theory and its derivatives state that a changed situation leads to a changed bodily state. As James says 'the perception of bodily changes as they occur IS the emotion.' James further claims that 'we feel sad because we cry, angry because we strike, afraid because we tremble, and neither we cry, strike, nor tremble because we are sorry, angry, or fearful, as the case may be.'

This theory is supported by experiments in which by manipulating the bodily state, a desired emotion is induced. Such experiments also have therapeutic implications (e.g. in laughter therapy, dance therapy). The James-Lange theory is often misunderstood because it seems counter-intuitive. Most people believe that emotions give rise to emotion-specific actions: i.e. "I'm crying because I'm sad," or "I ran away because I was scared." The James-Lange theory, conversely, asserts that first we react to a situation (running away and crying happen before the emotion), and then we interpret our actions into an emotional response. In this way, emotions serve to explain and organize our own actions to us.

Neurobiological theories

Based on discoveries made through neural mapping of the limbic system, the neurobiological explanation of human emotion is that emotion is a pleasant or unpleasant mental state organized in the limbic system of the mammalian brain. If distinguished from reactive responses of reptiles, emotions would then be mammalian elaborations of general vertebrate arousal patterns, in which neurochemicals (e.g., dopamine, noradrenaline, and serotonin) step-up or step-down the brain's activity level, as visible in body movements, gestures, and postures. In mammals, primates, and human beings, feelings are displayed as emotion cues.

For example, the human emotion of love is proposed to have evolved from paleocircuits of the mammalian brain (specifically, modules of the cingulate gyrus) which facilitate the care, feeding, and grooming of offspring. Paleocircuits are neural platforms for bodily expression configured millions of years before the advent of cortical circuits for speech. They consist of pre-configured pathways or networks of nerve cells in the forebrain, brain stem and spinal cord. They evolved prior to the earliest mammalian ancestors, as far back as the jawless fish, to control motor function.

Presumably, before the mammalian brain, life in the non-verbal world was automatic, preconscious, and predictable. The motor centers of reptiles react to sensory cues of vision, sound, touch, chemical, gravity, and motion with pre-set body movements and programmed postures. With the arrival of night-active mammals,

circa 180 million years ago, smell replaced vision as the dominant sense, and a different way of responding arose from the olfactory sense, which is proposed to have developed into mammalian emotion and emotional memory. In the Jurassic Period, the mammalian brain invested heavily in olfaction to succeed at night as reptiles slept — one explanation for why olfactory lobes in mammalian brains are proportionally larger than in the reptiles. These odor pathways gradually formed the neural blueprint for what was later to become our limbic brain.

Emotions are thought to be related to activity in brain areas that direct our attention, motivate our behavior, and determine the significance of what is going on around us. Pioneering work by Broca (1878), Papez (1937), and MacLean (1952) suggested that emotion is related to a group of structures in the center of the brain called the limbic system, which includes the hypothalamus, cingulate cortex, hippocampi, and other structures. More recent research has shown that some of these limbic structures are not as directly related to emotion as others are, while some non-limbic structures have been found to be of greater emotional relevance.

Prefrontal Cortex

There is ample evidence that the left prefrontal cortex is activated by stimuli that cause positive approach. If attractive stimuli can selectively activate a region of the brain, then logically the converse should hold, that selective activation of that region of the brain should cause a stimulus to be judged more positively. This was demonstrated for moderately attractive visual stimuli and replicated and extended to include negative stimuli.

Two neurobiological models of emotion in the prefrontal cortex made opposing predictions. The Valence Model predicted that anger, a negative emotion, would activate the right prefrontal cortex. The Direction Model predicted that anger, an approach emotion, would activate the left prefrontal cortex. The second model was supported.

This still left open the question of whether the opposite of approach in the prefrontal cortex is better described as moving away (Direction Model), as unmoving but with strength and resistance (Movement Model), or as unmoving with passive yielding (Action Tendency Model). Support for the Action Tendency Model (passivity related to right prefrontal activity) comes from research on shyness and research on behavioral inhibition. Research that tested the competing hypotheses generated by all four models also supported the Action Tendency Model.

Homeostatic Emotion

Another neurological approach, described by Bud Craig in 2003, distinguishes between two classes of emotion. "Classical emotions" include lust, anger and fear, and they are feelings evoked by environmental stimuli, which motivate us (to, in these examples, respectively, copulate/fight/flee). "Homeostatic emotions" are feelings evoked by internal body states, which modulate our behavior. Thirst, hunger, feeling hot or cold (core temperature), feeling sleep deprived, salt hunger and air hunger are all examples of homeostatic emotion; each is a signal from a body system saying "Things aren't right down here. Drink/eat/move into the shade/put on something warm/sleep/lick salty rocks/breathe." We begin to feel a homeostatic emotion when one of these systems drifts out of balance, and the feeling prompts us to do what is necessary to restore that system to balance. Pain is a homeostatic emotion telling us "Things aren't right here. Withdraw and protect."^{[13][14]}

Cognitive theories

There are some theories on emotions arguing that cognitive activity in the form of judgments, evaluations, or thoughts is necessary in order for an emotion to occur. This, argued by Richard Lazarus, is necessary to capture the fact that emotions are about something or have intentionality. Such cognitive activity may be conscious or unconscious and may or may not take the form of conceptual processing. An influential theory here is that of Lazarus. A prominent philosophical exponent is Robert C. Solomon (e.g. *The Passions, Emotions and the Meaning of Life*, 1993). The theory proposed by Nico Frijda where appraisal leads to action tendencies is another example. It has also been suggested that emotions (affect heuristics, feelings and gut-feeling reactions) are often used as shortcuts to process information and influence behaviour.

Perceptual theory

A recent hybrid of the somatic and cognitive theories of emotion is the perceptual theory. This theory is neo-Jamesian in arguing that bodily responses are central to emotions, yet it emphasises the meaningfulness of emotions or the idea that emotions are about something, as is recognised by cognitive theories. The novel claim of this theory is that conceptually based cognition is unnecessary for such meaning. Rather the bodily changes themselves perceive the meaningful content of the emotion because of being causally triggered by certain situations. In this respect, emotions are held to be analogous to faculties such as vision or touch, which provide information about the relation between the subject and the world in various ways. A sophisticated defense of this view is found in philosopher Jesse Prinz's book *Gut Reactions* and psychologist James Laird's book *Feelings*.

Affective Events Theory

This is a communication-based theory developed by Howard M. Weiss and Russell Cropanzano (1996), that looks at the causes, structures, and consequences of emotional experience (especially in work contexts.) This theory suggests that emotions are influenced and caused by events which in turn influence attitudes and behaviors. This theoretical frame also emphasizes time in that human beings experience what they call emotion episodes - a "series of emotional states extended over time and organized around an underlying theme". This theory has been utilized by numerous researchers to better understand emotion from a communicative lens, and was reviewed further by Howard M. Weiss and Daniel J. Beal in their article, Reflections on Affective Events Theory published in Research on Emotion in Organizations in 2005.

Cannon-Bard theory

In the Cannon-Bard theory, Walter Bradford Cannon argued against the dominance of the James-Lange theory regarding the physiological aspects of emotions in the second edition of Bodily Changes in Pain, Hunger, Fear and Rage. Where James argued that emotional behaviour often precedes or defines the emotion, Cannon and Bard argued that the emotion arises first and then stimulates typical behaviour.

Two-factor theory

Another cognitive theory is the Singer-Schachter theory. This is based on experiments purportedly showing that subjects can have different emotional reactions despite being placed into the same physiological state with an injection of adrenaline. Subjects were observed to express either anger or amusement depending on whether another person in the situation displayed that emotion. Hence the combination of the appraisal of the situation (cognitive) and the participants' reception of adrenaline or a placebo together determined the response. This experiment has been criticized in Jesse Prinz (2004) Gut Reactions.

Disorders of emotions

Apathy (also called **impassivity** or **perfunctoriness**) is a state of indifference, or the suppression of emotions such as concern, excitement, motivation and passion. An apathetic individual has an absence of interest or concern to emotional, social, or physical life. They may also exhibit an insensibility or sluggishness.

Depression or **moping** is a state of low mood and aversion to activity. While often described as a dysfunction, there are also strong arguments for seeing depression as an adaptive defense mechanism.

The Diagnostic and Statistical Manual of Mental Disorders defines a depressed person as experiencing feelings of sadness, helplessness and hopelessness. In traditional colloquy, "depressed" is often synonymous with "sad", but both clinical depression and non-clinical depression can also refer to a conglomeration of more than one feeling.

Anxiety is a psychological and physiological state characterized by cognitive, somatic, emotional, and behavioral components. These components combine to create an unpleasant feeling that is typically associated with uneasiness, fear, or worry.

Anxiety is a generalized mood condition that occurs without an identifiable triggering stimulus. As such, it is distinguished from fear, which occurs in the presence of an observed threat. Additionally, fear is related to the specific behaviors of escape and avoidance, whereas anxiety is the result of threats that are perceived to be uncontrollable or unavoidable.

Another view is that anxiety is "a future-oriented mood state in which one is ready or prepared to attempt to cope with upcoming negative events" suggesting that it is a distinction between future vs. present dangers that divides anxiety and fear.

Anxiety is considered to be a normal reaction to stress. It may help a person to deal with a difficult situation, for example at work or at school, by prompting one to cope with it. When anxiety becomes excessive, it may fall under the classification of an anxiety disorder.

Fear is an emotional response to a threat. It is a basic survival mechanism occurring in response to a specific stimulus, such as pain or the threat of danger. Some psychologists such as John B. Watson, Robert Plutchik, and Paul Ekman have suggested that fear is one of a small set of basic or innate emotions. This set also includes such emotions as joy, sadness, and anger. Fear should be distinguished from the related emotional state of anxiety, which typically occurs without any external threat. Additionally, fear is related to the specific behaviors of escape and avoidance, whereas anxiety is the result of threats which are perceived to be uncontrollable or unavoidable. Worth noting is that fear always relates to future events, such as worsening of a situation, or continuation of a situation that is unacceptable. Fear could also be an instant reaction, to something presently happening.

Phobia or morbid fear, is an intense and persistent fear of certain situations, activities, things, or people. The main symptom of this disorder is the excessive and unreasonable desire to avoid the feared subject. When the fear is beyond one's control, and if the

fear is interfering with daily life, then a diagnosis under one of the anxiety disorders can be made.

Phobias are the most common form of anxiety disorders. An American study by the National Institute of Mental Health (NIMH) found that between 8.7% and 18.1% of Americans suffer from phobias. Broken down by age and gender, the study found that phobias were the most common mental illness among women in all age groups and the second most common illness among men older than 25.

Dysphoria is an unpleasant or uncomfortable mood, such as sadness (depressed mood), anxiety, irritability, or restlessness. Etymologically, it is the opposite of euphoria.

Dysphoria refers only to a condition of mood and may be experienced in response to ordinary life events, such as illness or grief. Additionally, it is a feature of many psychiatric disorders, including anxiety disorders and mood disorders. Dysphoria is usually experienced during depressive episodes, but in people with bipolar disorder, it may also be experienced during manic or hypomanic episodes. Dysphoria in the context of a mood disorder indicates a heightened risk of suicide.

Dysphoria can be chemically induced by substances including μ -opioid antagonists and selective κ -opioid agonists. Dysphoria is also one of the symptoms of hypoglycemia.

Euphoria is medically recognized as a mental/emotional state defined as a sense of great (usually exaggerated) elation and wellbeing. Technically, euphoria is an affect, but the term is often colloquially used to define emotion as an intense state of transcendent happiness combined with an overwhelming sense of wellbeing. The word derives from Greek εὐφροία, "power of enduring easily, fertility". Euphoria is generally considered to be an exaggerated, resulting from an abnormal psychological state with or without the use of psychoactive drugs and not typically achieved during the normal course of human experience. However, some natural behaviors, such as activities resulting in orgasm or the triumph of an athlete, can induce brief states of euphoria. Euphoria has also been cited during certain religious or spiritual rituals and meditation.

Examination of emotions

Patient's examination. Keep to the attention mimic peculiarities, faces expression. On the patient's skin may be scars as traces of the depressive or affective suicidal attempts (on the heart, neck or elbow areas).

Conversation. Ask about patient's mood. It may be very important to observe for mimic and panthomimic of a patient

during all period of examination and conversation. Additional dates may be received by means of conversation with relatives, colleagues or other patients.

Experimental methods:

a). Investigation of a self-estimating by Dembo-Rubinshtein.

On the symbolic line of some human's peculiarities (health, mind, character, happiness ect.) psychologist propose to the patient to find his/her position by drop marking and explain it. Fixate self-estimating level, explanations and peculiarities of emotion's reactions.

b). There are many indirect methods of investigation of emotional functioning, such as **associative experiment, Rozenzveig Test, Rorschach Test, anxiety evaluation** ect.

CHAPTER VI

PSYCHOLOGY OF CONSCIOUSNESS

Objectives: to study the structure, peculiarities and neurophysiological basis of consciousness. To learn main philosophical conceptions of consciousness. To get the overview of consciousness disorders, methods of examination.

Consciousness is subjective experience or awareness or wakefulness or the executive control system of the mind. It is an umbrella term that may refer to a variety of mental phenomena. Although humans realize what everyday experiences are, consciousness refuses to be defined, philosophers note.

"Anything that we are aware of at a given moment forms part of our consciousness, making conscious experience at once the most familiar and most mysterious aspect of our lives" (Schneider and Velmans, 2007).

Consciousness in medicine (e.g., anesthesiology) is assessed by observing a patient's alertness and responsiveness, and can be seen as a continuum of states ranging from alert, oriented to time and place, and communicative through disorientation, then delirium, then loss of any meaningful communication, and ending with loss of movement in response to painful stimulation. Consciousness in psychology and philosophy has four characteristics: subjectivity, change, continuity and selectivity. Intentionality or aboutness (that consciousness is about something) has also been suggested by philosopher Brentano. However, within the philosophy of mind there is no consensus on whether intentionality is a requirement for consciousness.

Consciousness is the subject of much research in philosophy of mind, psychology, neuroscience, cognitive science, cognitive neuroscience and artificial intelligence. Issues of practical concern include how the presence of consciousness can be assessed in severely ill or comatose people; whether non-human consciousness

exists and if so how it can be measured; at what point in fetal development consciousness begins; and whether computers can achieve a conscious state.

There are many philosophical stances on consciousness, including: behaviorism, dualism, idealism, functionalism, reflexive monism, phenomenism, phenomenology and intentionality, physicalism, emergentism, mysticism, personal identity etc.

Phenomenal and access consciousness

Phenomenal consciousness (P-consciousness) is simply experience; it is moving, colored forms, sounds, sensations, emotions and feelings with our bodies and responses at the center. These experiences, considered independently of any impact on behavior, are called qualia. The hard problem of consciousness, formulated by David Chalmers in 1996, deals with the issue of "how to explain a state of phenomenal consciousness in terms of its neurological basis".

Access consciousness (A-consciousness) is the phenomenon whereby information in our minds is accessible for verbal report, reasoning, and the control of behavior. So, when we perceive, information about what we perceive is often access conscious; when we introspect, information about our thoughts is access conscious; when we remember, information about the past (e.g., something that we learned) is often access conscious, and so on. Chalmers thinks that access consciousness is less mysterious than phenomenal consciousness, so that it is held to pose one of the easy problems of consciousness. Daniel C. Dennett denies that there is a "hard problem", asserting that the totality of consciousness can be understood in terms of impact on behavior, as studied through heterophenomenology. There have been numerous approaches to the processes that act on conscious experience from instant to instant. Dennett suggests that what people think of as phenomenal consciousness, such as qualia, are judgments and consequent behavior. He extends this analysis by arguing that phenomenal consciousness can be explained in terms of access consciousness, denying the existence of qualia, hence denying the existence of a "hard problem." Chalmers, on the other hand, argues that Dennett's explanatory processes merely address aspects of the easy problem. Eccles and others have pointed out the difficulty of explaining the evolution of qualia, or of 'minds' which experience them, given that all the processes governing evolution are physical and so have no direct access to them. There is no guarantee that all people have minds, nor anyway to verify whether one does or does not possess one.

Events that occur in the mind or brain that are not within phenomenal or access consciousness are known as subconscious events.

The description and location of phenomenal consciousness

For centuries, philosophers have investigated phenomenal consciousness. René Descartes, who arrived at the famous dictum 'cogito ergo sum', wrote *Meditations on First Philosophy* in the seventeenth century. He described, extensively, what it is to be conscious. Conscious experience, according to Descartes, included such ideas as imaginings and perceptions laid out in space and time that are viewed from a point, and appearing as a result of some quality (qualia) such as color, smell, and so on.

Descartes defines ideas as extended things, as in this excerpt from his *Treatise on Man*:

Now among these figures, it is not those imprinted on the external sense organs, or on the internal surface of the brain, which should be taken to be ideas - but only those which are traced in the spirits on the surface of gland H [where the seat of the imagination and the 'common sense' is located]. That is to say, it is only the latter figures which should be taken to be the forms or images which the rational soul united to this machine will consider directly when it imagines some object or perceives it by the senses.

Thus Descartes does not identify mental ideas or 'qualia' with activity within the sense organs, or even with brain activity, but rather with the "forms or images" that unite the body and the 'rational soul', through the mediating 'gland H'. This organ is now known as the pineal gland. Descartes notes that, anatomically, while the human brain consists of two symmetrical hemispheres the pineal gland, which lies close to the brain's centre, appears to be singular. Thus he extrapolated from this that it was the mediator between body and soul.

Philosophical responses, including those of Nicolas Malebranche, Thomas Reid, John Locke, David Hume and Immanuel Kant, were varied. Malebranche, for example, agreed with Descartes that the human being was composed of two elements, body and mind, and that conscious experience resided in the latter. He did, however, disagree with Descartes as to the ease with which we might become aware of our mental constitution, stating 'I am not my own light unto myself'. David Hume and Immanuel Kant also differ from Descartes, in that they avoid mentioning a place from which experience is viewed (see "Further reading" below);

certainly, few if any modern philosophers have identified the pineal gland as the seat of dualist interaction.

The extension of things in time was considered in more detail by Kant and James. Kant wrote that "only on the presupposition of time can we represent to ourselves a number of things as existing at one and the same time [simultaneously] or at different times [successively]." William James stressed the extension of experience in time and said that time is "the short duration of which we are immediately and incessantly sensible."

When we look around a room or have a dream, things are laid out in space and time and viewed as if from a point. However, when philosophers and scientists consider the location of the form and contents of this phenomenal consciousness, there are fierce disagreements. As an example, Descartes proposed that the contents are brain activity seen by a non-physical place without extension (the *Res Cogitans*), which, in *Meditations on First Philosophy*, he identified as the soul. This idea is known as Cartesian Dualism. Another example is found in the work of Thomas Reid who thought the contents of consciousness are the world itself, which becomes conscious experience in some way. This concept is a type of Direct realism. The precise physical substrate of conscious experience in the world, such as photons, quantum fields, etc. is usually not specified.

Other philosophers, such as George Berkeley, have proposed that the contents of consciousness are an aspect of minds and do not necessarily involve matter at all. This is a type of Idealism. Yet others, such as Leibniz, have considered that each point in the universe is endowed with conscious content. This is a form of Panpsychism. Panpsychism is the belief that all matter, including rocks for example, is sentient or conscious. The concept of the things in conscious experience being impressions in the brain is a type of representationalism, and representationalism is a form of indirect realism.

It is sometimes held that consciousness emerges from the complexity of brain processing. The general label 'emergence' applies to new phenomena that emerge from a physical basis without the connection between the two explicitly specified.

Some theorists hold that phenomenal consciousness poses an explanatory gap. Colin McGinn takes the New Mysterianism position that it can't be solved, and Chalmers criticizes purely physical accounts of mental experiences based on the idea that philosophical zombies are logically possible and supports property dualism. But others have proposed speculative scientific theories to explain the explanatory gap, such as Quantum mind, space-time

theories of consciousness, reflexive monism, and Electromagnetic theories of consciousness to explain the correspondence between brain activity and experience.

Parapsychologists sometimes appeal to the unproven concepts of psychokinesis or telepathy to support the belief that consciousness is not confined to the brain.

Philosophical criticisms

From the eighteenth to twentieth centuries many philosophers concentrated on relations, processes and thought as the most important aspects of consciousness. These aspects would later become known as "access consciousness" and this focus on relations allowed philosophers such as Marx, Nietzsche and Foucault to claim that individual consciousness was dependent on such factors as social relations, political relations and ideology.

Locke's "forensic" notion of personal identity founded on an individual conscious subject would be criticized in the 19th century by Marx, Nietzsche, and Freud following different angles. Martin Heidegger's concept of the Dasein ("Being-there") would also be an attempt to think beyond the conscious subject.

Marx considered that social relations ontologically preceded individual consciousness, and criticized the conception of a conscious subject as an ideological conception on which liberal political thought was founded. Marx in particular criticized the 1789 Declaration of the Rights of Man and of the Citizen, considering that the so-called individual natural rights were ideological fictions camouflaging social inequality in the attribution of those rights. Later, Louis Althusser would criticize the "bourgeois ideology of the subject" through the concept of interpellation ("Hey, you!").

Nietzsche, for his part, once wrote that "they give you free will only to later blame yourself", thus reversing the classical liberal conception of free will in a critical account of the genealogy of consciousness as the effect of guilt and resentment, which he described in *On the Genealogy of Morals*. Hence, Nietzsche was the first one to make the claim that the modern notion of consciousness was indebted to the modern system of penalty, which judged a man according to his "responsibility", that is by the consciousness through which acts can be attributed to an individual subject: "I did this! this is me!". Consciousness is thus related by Nietzsche to the classic philosopheme of recognition which, according to him, defines knowledge.

According to Pierre Klossowski (1969), Nietzsche considered consciousness to be a hypostatization of the body, composed of multiple forces (the "Will to Power"). According to him, the subject

was only a "grammatical fiction": we believed in the existence of an individual subject, and therefore of a specific author of each act, insofar as we speak. Therefore, the conscious subject is dependent on the existence of language, a claim which would be generalized by critical discourse analysis (see for example Judith Butler).

Michel Foucault's analysis of the creation of the individual subject through disciplines, in *Discipline and Punish* (1975), would extend Nietzsche's genealogy of consciousness and personal identity - i.e. individualism - to the change in the juridico-penal system: the emergence of penology and the disciplinization of the individual subject through the creation of a penal system which judged not the acts as it alleged to, but the personal identity of the wrong-doer. In other words, Foucault maintained that, by judging not the acts (the crime), but the person behind those acts (the criminal), the modern penal system was not only following the philosophical definition of consciousness, once again demonstrating the imbrications between ideas and social institutions ("material ideology" as Althusser would call it); it was by itself creating the individual person, categorizing and dividing the masses into a category of poor but honest and law-abiding citizens and another category of "professional criminals" or recidivists.

Gilbert Ryle has argued that traditional understandings of consciousness depend on a Cartesian outlook that divides into mind and body, mind and world. He proposed that we speak not of minds, bodies, and the world, but of individuals, or persons, acting in the world. Thus, by saying 'consciousness,' we end up misleading ourselves by thinking that there is any sort of thing as consciousness separated from behavioral and linguistic understandings.

The failure to produce a workable definition of consciousness also raises formidable philosophical questions. It has been argued that when Antonio Damasio defines consciousness as "an organism's awareness of its own self and its surroundings", the definition has not escaped circularity, because awareness in that context can be considered a synonym for consciousness.

Consciousness and language

Because humans express their conscious states using language, it is tempting to equate language abilities and consciousness. There are, however, speechless humans (infants, feral children, aphasics, severe forms of autism), to whom consciousness is attributed despite language lost or not yet acquired. Moreover, the study of brain states of non-linguistic primates, in particular the macaques, has been used extensively by

scientists and philosophers in their quest for the neural correlates of the contents of consciousness.

Julian Jaynes argued to the contrary, in *The Origin of Consciousness in the Breakdown of the Bicameral Mind*, that for consciousness to arise in a person, language needs to have reached a fairly high level of complexity. According to Jaynes, human consciousness emerged as recently as 1300 BCE or thereabouts. He defines consciousness in such a way as to show how he conceives of it as a type of thinking which builds upon non human ways of perceiving.

Some philosophers, including W.V. Quine, and some neuroscientists, including Christof Koch, contest this hypothesis, arguing that it suggests that prior to this "discovery" of consciousness, experience simply did not exist. Ned Block argued that Jaynes had confused consciousness with the concept of consciousness, the latter being what was discovered between the *Iliad* and the *Odyssey*. Daniel Dennett points out that these approaches misconceive Jaynes's definition of consciousness as more than mere perception or awareness of an object. He notes that consciousness is like money in that having the thing requires having the concept of it, so it is a revolutionary proposal and not a ridiculous error to suppose that consciousness only emerges when its concept does.

More recently, Merlin Donald, seeing a similar connection between language and consciousness, and a similar link to cultural, and not purely genetic, evolution, has put a similar proposal to Jaynes' forward - though relying on less specific speculation about the more recent pre-history of consciousness.

The idea that language and consciousness are not innate to humans, a characteristic of human nature, but rather the result of cultural evolution, beginning with something similar to the culture of chimpanzees, goes back before Darwin to Rousseau's *Second Discourse*.

Cognitive psychology and cognitive neuroscience

For a long time in scientific psychology, consciousness as a research topic or explanatory concept had been banned. Research on topics associated with consciousness were conducted under the banner of attention. Modern investigations into consciousness are based on psychological statistical studies and case studies of consciousness states and the deficits caused by lesions, stroke, injury, or surgery that disrupt the normal functioning of human senses and cognition. These discoveries suggest that the mind is a complex structure derived from various localized functions that are bound together with a unitary awareness.

Several studies point to common mechanisms in different clinical conditions that lead to loss of consciousness. Persistent vegetative state (PVS) is a condition in which an individual loses the higher cerebral powers of the brain, but maintains sleep-wake cycles with full or partial autonomic functions. Studies comparing PVS with healthy, awake subjects consistently demonstrate an impaired connectivity between the deeper (brainstem and thalamic) and the upper (cortical) areas of the brain. In addition, it is agreed that the general brain activity in the cortex is lower in the PVS state. Some electroneurobiological interpretations of consciousness characterize this loss of consciousness as a loss of the ability to resolve time (similar to playing an old phonographic record at very slow or very rapid speed), along a continuum that starts with inattention, continues on sleep, and arrives to coma and death [24]. It is likely that different components of consciousness can be teased apart with anesthetics, sedatives and hypnotics. These drugs appear to differentially act on several brain areas to disrupt, to varying degrees, different components of consciousness. The ability to recall information, for example, may be disrupted by anesthetics acting on the hippocampal cortex. Neurons in this region are particularly sensitive to anesthetics at the time loss of recall occurs. Direct anesthetic actions on hippocampal neurons have been shown to underlie EEG effects that occur in humans and animals during loss of recall.

Loss of consciousness also occurs in other conditions, such as general (tonic-clonic) epileptic seizures, in general anaesthesia, maybe even in deep (slow-wave) sleep. At present, the best-supported hypotheses about such cases of loss of consciousness (or loss of time resolution) focus on the need for 1) a widespread cortical network, including particularly the frontal, parietal and temporal cortices, and 2) cooperation between the deep layers of the brain, especially the thalamus, and the upper layers, the cortex. Such hypotheses go under the common term "globalist theories" of consciousness, due to the claim for a widespread, global network necessary for consciousness to interact with non-mental reality in the first place.

Brain chemistry affects human consciousness. Sleeping drugs can bring the brain from the awake condition (conscious) to the sleep (unconscious). Wake-up drugs such as flumazenil reverse this process. Many other drugs (such as alcohol, nicotine, Tetrahydrocannabinol (THC), heroin, cocaine, LSD, MDMA) have a consciousness-changing effect.

There is a neural link between the left and right hemispheres of the brain, known as the corpus callosum. This link is sometimes

surgically severed to control severe seizures in epilepsy patients. This procedure was first performed by Roger Sperry in the 1960s. Tests of these patients have shown that, after the link is completely severed, the hemispheres are no longer able to communicate, leading to certain problems that usually arise only in test conditions. For example, while the left side of the brain can verbally describe what is going on in the right visual field, the right hemisphere is essentially mute, instead relying on its spatial abilities to interact with the world on the left visual field. Some say that it is as if two separate minds now share the same skull, but both still represent themselves as a single "I" to the outside world.

The bilateral removal of the centromedian nucleus (part of the Intra-laminar nucleus of the Thalamus) appears to abolish consciousness, causing coma, PVS, severe mutism and other features that mimic brain death. The centromedian nucleus is also one of the principal sites of action of general anaesthetics and anti-psychotic drugs. This evidence suggests that a functioning thalamus is necessary, but not sufficient, for human consciousness.

Neurophysiological studies in awake, behaving monkeys point to advanced cortical areas in prefrontal cortex and temporal lobes as carriers of neuronal correlates of consciousness. Christof Koch and Francis Crick argue that neuronal mechanisms of consciousness are intricately related to prefrontal cortex — cortical areas involved in higher cognitive function, affect, behavioral control, and planning. Rodolfo Llinas proposes that consciousness results from recurrent thalamo-cortical resonance where the specific thalamocortical systems (content) and the non-specific (centromedial thalamus) thalamocortical systems (context) interact in the gamma band frequency via time coincidence. According to this view the "I" represents a global predictive function required for intentionality. Experimental work of Steven Wise, Mikhail Lebedev and their colleagues supports this view. They demonstrated that activity of prefrontal cortex neurons reflects illusory perceptions of movements of visual stimuli. Nikos Logothetis and colleagues made similar observations on visually responsive neurons in the temporal lobe. These neurons reflect the visual perception in the situation when conflicting visual images are presented to different eyes (i.e., bistable percepts during binocular rivalry). The studies of blindsight — vision without awareness after lesions to parts of the visual system such as the primary visual cortex — performed by Lawrence Weiskrantz and David P. Carey provided important insights on how conscious perception arises in the brain.

In recent years the theory of two visual streams, vision for perception versus vision for action has been refined by Melvyn Goodale, David Milner and others. According to this theory, visual perception arises as the result of processing of visual information by the ventral stream areas (located mostly in the temporal lobe), whereas the dorsal stream areas (located mostly in the parietal lobe) process visual information unconsciously. For example, catching a ball quickly would engage the dorsal stream areas, whereas viewing a painting would engage the ventral stream. Overall, these studies show that conscious versus unconscious behaviors can be linked to specific brain areas and patterns of neuronal activation.

An alternative and more global approach to analyzing neurophysiological correlates of consciousness is referred to by the Fingelkurts as Operational Architectonics. This still-untested theory postulates that thoughts are matched with and generated by underlying neurophysiological activity patterns that can be revealed directly by EEG.

Evolutionary psychology

Consciousness can be viewed from the standpoints of **evolutionary psychology** or evolutionary biology approach as an adaptation because it is a trait that increases fitness.^[33] Consciousness also adheres to John Alcock's theory of animal behavioral adaptations because it possesses both proximate and ultimate causes.

The proximate causes for consciousness, i.e. how consciousness evolved in animals, is a subject considered by Sir John C. Eccles in his paper "Evolution of consciousness." He argues that special anatomical and physical properties of the mammalian cerebral cortex gave rise to consciousness. Budiansky, by contrast, limits consciousness to humans, proposing that human consciousness may have evolved as an adaptation to anticipate and counter social strategems of other humans, predators, and prey. Alternatively, it has been argued that the recursive circuitry underwriting consciousness is much more primitive, having evolved initially in premammalian species because it improves the capacity for interaction with both social and natural environments by providing an energy-saving "neutral" gear in an otherwise energy-expensive motor output machine. Another theory, proposed by Shaun Nichols and Todd Grantham, proposes that it is unnecessary to trace the exact evolutionary or causal role of phenomenal consciousness because the complexity of phenomenal consciousness alone implies that it is an adaptation. Once in place, this recursive circuitry may well have provided a basis for the subsequent development of many of the functions which

consciousness facilitates in higher organisms, as outlined by Bernard J. Baars. Konrad Lorenz sees the roots of consciousness in the process of self-exploration of an organism that sees itself acting and learns a lifetime. Behind the Mirror: A Search for a Natural History of Human Knowledge

Functions of Consciousness

Function	Purpose
Definition and context-setting	Relating global input to its contexts, thereby defining input and removing ambiguities
Adaptation and learning	Representing and adapting to novel and significant events
Editing, flagging, and debugging	Monitoring conscious content, editing it, and trying to change it if it is consciously "flagged" as an error
Recruiting and control function	Recruiting subgoals and motor systems to organize and carry out mental and physical actions
Prioritizing and access control	Control over what will become conscious
Decision-making or executive function	Recruiting unconscious knowledge sources to make proper decisions, and making goals conscious to allow widespread recruitment of conscious and unconscious "votes" for or against them
Analogy-forming function	Searching for a partial match between contents of unconscious systems and a globally displayed (conscious) message
Metacognitive self-forming function or	Reflection upon and control of our own conscious and unconscious functioning
Auto-programming and self-maintenance function	Maintenance of maximum stability in the face of changing inner and outer conditions

Disturbances of consciousness

There are two main groups of consciousness disturbances in the clinical practice: quantitative (nonpsychotic, simplex forms) and

qualitative (psychotic or complicated forms, which includes symptoms of sensory, moving, thinking and another disorders).

a) Nonpsychotic:

- **Somnolence** (or "**drowsiness**") is a state of near-sleep, a strong desire for sleep, or sleeping for unusually long periods (c.f. hypersomnia). It has two distinct meanings, referring both to the usual state preceding falling asleep, and the chronic condition referring to being in that state independent of a circadian rhythm. The disorder characterized by the latter condition is most commonly associated with the use of prescription medications such as mirtazapine or zolpidem.

It is considered a lesser impairment of consciousness than stupor or coma.

- **Sopor** is abnormally deep sleep or a stupor which is difficult to get rid of. Sopor may be caused by a drug. Such drugs are called **soporific**. The name is derived from Latin sopor (cognate with the Latin noun Somnus and the Greek noun Hypnos).

- **Coma** (from the Greek κῶμα koma, meaning deep sleep) is a profound state of unconsciousness. A comatose person cannot be awakened, fails to respond normally to pain or light, does not have sleep-wake cycles, and does not take voluntary actions.

Coma may result from a variety of conditions, including intoxication, metabolic abnormalities, central nervous system diseases, acute neurologic injuries such as stroke, and hypoxia. A coma may also result from head trauma caused by mechanisms such as falls or car accidents. It may also be deliberately induced by pharmaceutical agents in order to preserve higher brain function following another form of brain trauma, or to save the patient from extreme pain during healing of injuries or diseases. The underlying cause of coma is bilateral damage to the Reticular formation of the midbrain, which is important in regulating sleep.

If the cause of coma is not clear, various investigations (blood tests, medical imaging) may be performed to establish the cause and identify reversible causes. Coma usually necessitates admission to a hospital and often the intensive care unit.

b) Psychotic:

- **Depersonalization** is a malfunction or anomaly of the mechanism by which an individual has self awareness. It is a feeling of watching oneself act, while having no control over a situation. It can be considered desirable, such as in the use of recreational drugs, but it usually refers to the severe form found in anxiety and, in the most intense cases, panic attacks. A sufferer feels he or she has changed and the world has become less real, vague, dreamlike, or lacking in significance. It can sometimes be a

rather disturbing experience, since many feel that, indeed, they are living in a "dream".

Chronic depersonalization refers to depersonalization disorder, which is classified by the DSM-IV as a dissociative disorder. It is also a prominent symptom in some other non-dissociative disorders, such as anxiety disorders, clinical depression, bipolar disorder, obsessive-compulsive disorder, migraine, sleep deprivation, and some types of epilepsy.

- **Derealization** is an alteration in the perception or experience of the external world so that it seems strange or unreal. Other symptoms include feeling as though one's environment is lacking in spontaneity, emotional colouring and depth. It is a dissociative symptom of many conditions, such as psychiatric and neurological disorders, and not a standalone disorder. It is also a transient side effect of acute drug intoxication, sleep deprivation, and stress.

Derealization is a subjective experience of unreality of the outside world, while depersonalization is unreality in one's sense of self. Although most authors currently regard derealization (surroundings) and depersonalization (self) as independent constructs, many do not want to separate derealization from depersonalization. Chronic derealization may be caused by occipital-temporal dysfunction. These symptoms are common in the population, with a lifetime prevalence of up to 74% and between 31 and 66% at the time of a traumatic event.

- **Delirium** is an acute and debilitating decline in attention-focus, perception, and cognition that produces an altered form of semi-consciousness. It is a systemic syndrome caused by a chemical or disease-process which is disrupting the neurons of the cerebral cortex. Though hallucinations and delusions are often present, the symptoms of delirium are clinically distinct from those induced by psychosis or hallucinogens.

In medical usage it is not synonymous with drowsiness, and may occur without it. Delirium may be of a hyperactive variety manifested by 'positive' symptoms of agitation or combativeness, or it may be of a hypoactive variety (often referred to as 'quiet' delirium) manifested by 'negative' symptoms such as inability to converse or focus attention or follow commands. While the common non-medical view of a delirious patient is one who is hallucinating, most people who are medically delirious do not have either hallucinations or delusions. Delirium is commonly associated with a disturbance of consciousness (e.g., reduced clarity of awareness of the environment). The change in cognition (memory deficit, disorientation, language disturbance) or the development of a perceptual disturbance, must be one that is not better accounted

for by a pre-existing, established, or evolving dementia. Usually the rapidly fluctuating time course of delirium is used to help in the latter distinction.

- **Oneiroid syndrome** is an element of the catatonic form of schizophrenia and presents with dreamy-like state as a background of intensive psychopathological experiences. Oneiroid states were first described by the German physician Meyer-Gross in 1928, mainly statistically. Later in 1961 the Bulgarian psychiatrist S.T.Stoyanov studied the dynamics and the course of the oneiroid syndrom in "periodic", or remittent schizophrenia (ICD-10).

According to this research the syndrome has six stages in its course: (1) initial general-somatic and vegetative disorder; (2) delusional mood, (3) affective-delusional depersonalisation and derealisation, (4) fantastic-delusional and affective depersonalisation and derealisation, (5) illusional depersonalisation and derealisation, and (6) catatonic-oneiroid state in the culmination.

Examination of consciousness

As there is no clear definition of consciousness and no empirical measure exists to test for its presence, it has been argued that due to the nature of the problem of consciousness, empirical tests are intrinsically impossible. However, several tests have been developed which attempt to provide an operational definition of consciousness and try to determine whether computers and non-human animals can demonstrate through their behavior, by passing these tests, that they are conscious.

In medicine, several neurological and brain imaging techniques, like EEG and fMRI, have proven useful for physical measures of brain activity associated with consciousness. This is particularly true for EEG measures during anesthesia that can provide an indication of anesthetic depth, although with still limited accuracies of ~ 70 % and a high degree of patient and drug variability seen.

CHAPTER VII

PSYCHOLOGY OF PERSONALITY

Objectives: to study the structure and psychological peculiarities of personality (temperament, character), influences of biological and social factors to the personality development. To get the overview of personality disorders, methods of examination.

Personality psychology is a branch of psychology that studies personality and individual differences. Its areas of focus include:

- Constructing a coherent picture of a person and his or her major psychological processes.
- Investigating individual differences, that is, how people can differ from one another.
- Investigating human nature, that is, how all people's behaviour is similar.

One emphasis in this area is to construct a coherent picture of a person and his or her major psychological processes. Another emphasis views personality as the study of individual differences, in other words, how people differ from each other. A third area of emphasis examines human nature and how all people are similar to one another. These three viewpoints merge together in the study of personality.

Personality can be defined as a dynamic and organized set of characteristics possessed by a person that uniquely influences his or her cognitions, motivations, and behaviors in various situations [3]. The word "personality" originates from the Latin *persona*, which means mask. Significantly, in the theatre of the ancient Latin-speaking world, the mask was not used as a plot device to disguise the identity of a character, but rather was a convention employed to represent or typify that character.

The pioneering American psychologist, Gordon Allport (1937) described two major ways to study personality, the nomothetic and the idiographic. Nomothetic psychology seeks general laws that can be applied to many different people, such as the principle of self-actualization, or the trait of extraversion. Idiographic psychology is

an attempt to understand the unique aspects of a particular individual.

The study of personality has a rich and varied history in psychology, with an abundance of theoretical traditions. The major theories include dispositional (trait) perspective, psychodynamic, humanistic, biological, behaviorist and social learning perspective. There is no consensus on the definition of "personality" in psychology. Most researchers and psychologists do not explicitly identify themselves with a certain perspective and often take an eclectic approach. Some research is empirically driven such as the "Big 5" personality model whereas other research emphasizes theory development such as psychodynamics. There is also a substantial emphasis on the applied field of personality testing.

Personality theories

Critics of personality theory claim personality is "plastic" across time, places, moods, and situations. Changes in personality may indeed result from diet (or lack thereof), medical effects, significant events, or learning. However, most personality theories emphasize stability over fluctuation.

Trait theories

According to the Diagnostic and Statistical Manual of the American Psychiatric Association, personality traits are "enduring patterns of perceiving, relating to, and thinking about the environment and oneself that are exhibited in a wide range of social and personal contexts." Theorists generally assume a) traits are relatively stable over time, b) traits differ among individuals (e.g. some people are outgoing while others are reserved), and c) traits influence behavior.

The most common models of traits incorporate three to five broad dimensions or factors. The least controversial dimension, observed as far back as the ancient Greeks, is simply extraversion vs. introversion (outgoing and physical-stimulation-oriented vs. quiet and physical-stimulation-averse).

• **Gordon Allport** delineated different kinds of traits, which he also called dispositions. Central traits are basic to an individual's personality, while secondary traits are more peripheral. Common traits are those recognized within a culture and thus may vary from culture to culture. Cardinal traits are those by which an individual may be strongly recognized.

• **Raymond Cattell's** research propagated a two-tiered personality structure with sixteen "primary factors" (16 Personality Factors) and five "secondary factors."

• **Hans Eysenck** believed just three traits—extraversion, neuroticism and psychoticism—were sufficient to describe human

personality. Differences between Cattell and Eysenck emerged due to preferences for different forms of factor analysis, with Cattell using oblique, Eysenck orthogonal, rotation to analyse the factors that emerged when personality questionnaires were subjected to statistical analysis. Today, the Big Five factors have the weight of a considerable amount of empirical research behind them, building on the work of Cattell and others.

• **Lewis Goldberg** proposed a five-dimension personality model, nicknamed the "Big Five":

1. **Openness to Experience:** the tendency to be imaginative, independent, and interested in variety vs. practical, conforming, and interested in routine.

2. **Conscientiousness:** the tendency to be organized, careful, and disciplined vs. disorganized, careless, and impulsive.

3. **Extraversion:** the tendency to be sociable, fun-loving, and affectionate vs. retiring, somber, and reserved.

4. **Agreeableness:** the tendency to be softhearted, trusting, and helpful vs. ruthless, suspicious, and uncooperative.

5. **Neuroticism:** the tendency to be calm, secure, and self-satisfied vs. anxious, insecure, and self-pitying.

The Big Five contain important dimensions of personality. However, some personality researchers argue that this list of major traits is not exhaustive. Some support has been found for two additional factors: excellent/ordinary and evil/decent. However, no definitive conclusions have been established.

• **John L. Holland's** RIASEC vocational model, commonly referred to as the **Holland Codes**, stipulates that six personality traits lead people to choose their career paths. In this circumplex model, the six types are represented as a hexagon, with adjacent types more closely related than those more distant. The model is widely used in vocational counseling.

Trait models have been criticized as being purely descriptive and offering little explanation of the underlying causes of personality. Eysenck's theory, however, does propose biological mechanisms as driving traits, and modern behavior genetics researchers have shown a clear genetic substrate to them. Another potential weakness of trait theories is that they lead people to accept oversimplified classifications, or worse offer advice, based on a superficial analysis of their personality. Finally, trait models often underestimate the effect of specific situations on people's behavior. It is important to remember that traits are statistical generalizations that do not always correspond to an individual's behavior.

Type theories

Personality type refers to the psychological classification of different types of people. Personality types are distinguished from personality traits, which come in different levels or degrees. For example, according to type theories, there are two types of people, introverts and extraverts. According to trait theories, introversion and extraversion are part of a continuous dimension, with many people in the middle. The idea of psychological types originated in the theoretical work of Carl Jung and William Marston, whose work is reviewed in Dr. Travis Bradberry's *The Personality Code*. Jung's seminal 1921 book on the subject is available in English as *Psychological Types*.

Building on the writings and observations of Jung, during World War II, Isabel Briggs Myers and her mother, Katharine C. Briggs, delineated personality types by constructing the Myers-Briggs Type Indicator. This model was later used by David Keirsey with a different understanding from Jung, Briggs and Myers. In the former Soviet Union, Lithuanian Aušra Augustinavičiūtė independently derived a model of personality type from Jung's called Socionics.

The model is an older and more theoretical approach to personality, accepting extraversion and introversion as basic psychological orientations in connection with two pairs of psychological functions:

- Perceiving functions: sensing and intuition (trust in concrete, sensory-oriented facts vs. trust in abstract concepts and imagined possibilities)
- Judging functions: thinking and feeling (basing decisions primarily on logic vs. considering the effect on people).

Briggs and Myers also added another personality dimension to their type indicator to measure whether a person prefers to use a judging or perceiving function when interacting with the external world. Therefore they included questions designed to indicate whether someone wishes to come to conclusions (judgment) or to keep options open (perception).

This personality typology has some aspects of a trait theory: it explains people's behaviour in terms of opposite fixed characteristics. In these more traditional models, the sensing/intuition preference is considered the most basic, dividing people into "N" (intuitive) or "S" (sensing) personality types. An "N" is further assumed to be guided either by thinking or feeling, and divided into the "NT" (scientist, engineer) or "NF" (author, humanitarian) temperament. An "S", by contrast, is assumed to be guided more by the judgment/perception axis, and thus divided

into the "SJ" (guardian, traditionalist) or "SP" (performer, artisan) temperament. These four are considered basic, with the other two factors in each case (including always extraversion/introversion) less important. Critics of this traditional view have observed that the types can be quite strongly stereotyped by professions (although neither Myers nor Keirsey engaged in such stereotyping in their type descriptions), and thus may arise more from the need to categorize people for purposes of guiding their career choice. This among other objections led to the emergence of the five-factor view, which is less concerned with behavior under work conditions and more concerned with behavior in personal and emotional circumstances. (It should be noted, however, that the MBTI is not designed to measure the "work self," but rather what Myers and McCaulley called the "shoes-off self"). Some critics have argued for more or fewer dimensions while others have proposed entirely different theories (often assuming different definitions of "personality").

Type A personality: During the 1950s, Meyer Friedman and his co-workers defined what they called Type A and Type B behavior patterns. They theorized that intense, hard-driving Type A personalities had a higher risk of coronary disease because they are "stress junkies." Type B people, on the other hand, tended to be relaxed, less competitive, and lower in risk. There was also a Type AB mixed profile. Dr. Redford Williams, cardiologist at Duke University, refuted Friedman's theory that Type A personalities have a higher risk of coronary heart disease; however, current research indicates that only the hostility component of Type A may have health implications. Type A/B theory has been extensively criticized by psychologists because it tends to oversimplify the many dimensions of an individual's personality.

Psychoanalytic theories

Psychoanalytic theories explain human behaviour in terms of the interaction of various components of personality. Sigmund Freud was the founder of this school. Freud drew on the physics of his day (thermodynamics) to coin the term psychodynamics. Based on the idea of converting heat into mechanical energy, he proposed psychic energy could be converted into behavior. Freud's theory places central importance on dynamic, unconscious psychological conflicts.

Freud divides human personality into three significant components: the [id, ego and the superego]. The **id** acts according to the pleasure principle, demanding immediate gratification of its needs regardless of external environment; the **ego** then must emerge in order to realistically meet the wishes and demands of the

id in accordance with the outside world, adhering to the reality principle. Finally, the **superego** (conscience) inculcates moral judgment and societal rules upon the ego, thus forcing the demands of the id to be met not only realistically but morally. The superego is the last function of the personality to develop, and is the embodiment of parental/social ideals established during childhood. According to Freud, personality is based on the dynamic interactions of these three components.

The channeling and release of sexual (libidal) and aggressive energies, which ensues from the "Eros" (sex; instinctual self-preservation) and "Thanatos" (death; instinctual self-annihilation) drives respectively, are major components of his theory. It is important to note Freud's broad understanding of sexuality included all kinds of pleasurable feelings experienced by the human body.

Freud proposed five psychosexual stages of personality development. He believed adult personality is dependent upon early childhood experiences and largely determined by age five. Fixations that develop during the Infantile stage contribute to adult personality and behavior.

One of Sigmund Freud's earlier associates, Alfred Adler, did agree with Freud early childhood experiences are important to development, and believed birth order may influence personality development. Adler believed the oldest was the one that set high goals to achieve to get the attention they lost back when the younger siblings were born. He believed the middle children were competitive and ambitious possibly so they are able to surpass the first-born's achievements, but were not as much concerned about the glory. Also he believed the last born would be more dependent and sociable but be the baby. He also believed that the only child loves being the center of attention and matures quickly, but in the end fails to become independent.

Heinz Kohut thought similarly to Freud's idea of transference. He used narcissism as a model of how we develop our sense of self. Narcissism is the exaggerated sense of one self in which is believed to exist in order to protect one's low self esteem and sense of worthlessness. Kohut had a significant impact on the field by extending Freud's theory of narcissism and introducing what he called the 'self-object transferences' of mirroring and idealization. In other words, children need to idealize and emotionally "sink into" and identify with the idealized competence of admired figures such as parents or older siblings. They also need to have their self-worth mirrored by these people. These experiences allow them to thereby

learn the self-soothing and other skills that are necessary for the development of a healthy sense of self.

Another important figure in the world of personality theory was Karen Horney. She is credited with the development of the "real self" and the "ideal self". She believes all people have these two views of their own self. The "real self" is how you really are with regards to personality, values, and morals; but the "ideal self" is a construct you apply to yourself to conform to social and personal norms and goals. Ideal self would be "I can be successful, I am CEO material"; and real self would be "I just work in the mail room, with not much chance of high promotion".

Behaviorist theories

Behaviorists explain personality in terms of the effects external stimuli have on behavior. It was a radical shift away from Freudian philosophy. This school of thought was developed by B. F. Skinner who put forth a model which emphasized the mutual interaction of the person or "the organism" with its environment. Skinner believed children do bad things because the behavior obtains attention that serves as a reinforcer. For example: a child cries because the child's crying in the past has led to attention. These are the response, and consequences. The response is the child crying, and the attention that child gets is the reinforcing consequence. According to this theory, people's behavior is formed by processes such as operant conditioning. Skinner put forward a "three term contingency model" which helped promote analysis of behavior based on the "Stimulus - Response - Consequence Model" in which the critical question is: "Under which circumstances or antecedent 'stimuli' does the organism engage in a particular behavior or 'response', which in turn produces a particular 'consequence'?"

Richard Herrnstein extended this theory by accounting for attitudes and traits. An attitude develops as the response strength (the tendency to respond) in the presences of a group of stimuli become stable. Rather than describing conditionable traits in non-behavioral language, response strength in a given situation accounts for the environmental portion. Herrnstein also saw traits as having a large genetic or biological component as do most modern behaviorists.

Ivan Pavlov is another notable influence. He is well known for his classical conditions experiments involving a dog. These physiological studies on this dog led him to discover the foundation of behaviorism as well as classical conditioning.

Social cognitive theories

In cognitivism, behavior is explained as guided by cognitions (e.g. expectations) about the world, especially those about other

people. Cognitive theories are theories of personality that emphasize cognitive processes such as thinking and judging.

Albert Bandura, a social learning theorist suggested the forces of memory and emotions worked in conjunction with environmental influences. Bandura was known mostly for his "Bobo Doll experiment". During these experiments, Bandura video taped a college student kicking and verbally abusing a bobo doll. He then showed this video to a class of kindergarten children who were getting ready to go out to play. When they entered the play room, they saw bobo dolls, and some hammers. The people observing these children at play saw a group of children beating the doll. He called this study and his findings observational learning, or modeling.

Early examples of approaches to cognitive style are listed by Baron (1982). These include Witkin's (1965) work on field dependency, Gardner's (1953) discovering people had consistent preference for the number of categories they used to categorise heterogeneous objects, and Block and Petersen's (1955) work on confidence in line discrimination judgments. Baron relates early development of cognitive approaches of personality to ego psychology. More central to this field have been:

- Self-efficacy work, dealing with confidence people have in abilities to do tasks;

- Locus of control theory dealing with different beliefs people have about whether their worlds are controlled by themselves or external factors;

- Attributional style theory dealing with different ways in which people explain events in their lives. This approach builds upon locus of control, but extends it by stating we also need to consider whether people attribute to stable causes or variable causes, and to global causes or specific causes.

Various scales have been developed to assess both attributional style and locus of control. Locus of control scales include those used by Rotter and later by Duttweiler, the Nowicki and Strickland (1973) Locus of Control Scale for Children and various locus of control scales specifically in the health domain, most famously that of Kenneth Wallston and his colleagues, The Multidimensional Health Locus of Control Scale. Attributional style has been assessed by the Attributional Style Questionnaire, the Expanded Attributional Style Questionnaire, the Attributions Questionnaire, the Real Events Attributional Style Questionnaire and the Attributional Style Assessment Test.

Walter Mischel (1999) has also defended a cognitive approach to personality. His work refers to "Cognitive Affective Units", and

considers factors such as encoding of stimuli, affect, goal-setting, and self-regulatory beliefs. The term "Cognitive Affective Units" shows how his approach considers affect as well as cognition.

Humanistic theories

In humanistic psychology it is emphasized people have free will and they play an active role in determining how they behave. Accordingly, humanistic psychology focuses on subjective experiences of persons as opposed to forced, definitive factors that determine behavior. Abraham Maslow and Carl Rogers were proponents of this view, which is based on the "phenomenal field" theory of Combs and Snygg (1949).

Maslow spent much of his time studying what he called "self-actualizing persons", those who are "fulfilling themselves and doing the best they are capable of doing". Maslow believes all who are interested in growth move towards self-actualizing (growth, happiness, satisfaction) views. Many of these people demonstrate a trend in dimensions of their personalities. Characteristics of self-actualizers according to Maslow include the four key dimensions:

1. **Awareness** - maintaining constant enjoyment and awe of life. These individuals often experienced a "peak experience". He defined a peak experience as an "intensification of any experience to the degree there is a loss or transcendence of self". A peak experience is one in which an individual perceives an expansion of his or herself, and detects a unity and meaningfulness in life. Intense concentration on an activity one is involved in, such as running a marathon, may invoke a peak experience.

2. **Reality and problem centered** - they have tendency to be concerned with "problems" in their surroundings.

3. **Acceptance/Spontaneity** - they accept their surroundings and what cannot be changed.

4. **Unhostile sense of humor/democratic** - they do not like joking about others, which can be viewed as offensive. They have friends of all backgrounds and religions and hold very close friendships.

Maslow and Rogers emphasized a view of the person as an active, creative, experiencing human being who lives in the present and subjectively responds to current perceptions, relationships, and encounters. They disagree with the dark, pessimistic outlook of those in the Freudian psychoanalysis ranks, but rather view humanistic theories as positive and optimistic proposals which stress the tendency of the human personality toward growth and self-actualization. This progressing self will remain the center of its constantly changing world; a world that will help mold the self but not necessarily confine it. Rather, the self has opportunity for

maturation based on its encounters with this world. This understanding attempts to reduce the acceptance of hopeless redundancy. Humanistic therapy typically relies on the client for information of the past and its effect on the present, therefore the client dictates the type of guidance the therapist may initiate. This allows for an individualized approach to therapy. Rogers found patients differ in how they respond to other people. Rogers tried to model a particular approach to therapy- he stressed the reflective or empathetic response. This response type takes the client's viewpoint and reflects back his or her feeling and the context for it. An example of a reflective response would be, "It seems you are feeling anxious about your upcoming marriage". This response type seeks to clarify the therapist's understanding while also encouraging the client to think more deeply and seek to fully understand the feelings they have expressed.

Biopsychological theories

Some of the earliest thinking about possible biological bases of personality grew out of the case of Phineas Gage. In an 1848 accident, a large iron rod was driven through Gage's head, and his personality apparently changed as a result (although descriptions of these psychological changes are usually exaggerated).

In general, patients with brain damage have been difficult to find and study. In the 1990s, researchers began to use Electroencephalography (EEG), Positron Emission Tomography (PET) and more recently functional Magnetic Resonance Imaging (fMRI), which is now the most widely used imaging technique to help localize personality traits in the brain. One of the founders of this area of brain research is Richard Davidson of the University of Wisconsin-Madison. Davidson's research lab has focused on the role of the prefrontal cortex (PFC) and amygdala in manifesting human personality. In particular, this research has looked at hemispheric asymmetry of activity in these regions. Neuropsychological experiments have suggested that hemispheric asymmetry can affect an individual's personality (particularly in social settings) for individuals with NLD (non-verbal learning disorder), which is marked by the impairment of nonverbal information controlled by the right hemisphere of the brain. Progress will arise in the areas of gross motor skills, inability to organize visual-spatial relations, or adapt to novel social situations. Frequently, a person with NLD is unable to interpret non-verbal cues, and therefore experiences difficulty interacting with peers in socially normative ways.

One integrative, biopsychosocial approach to personality and psychopathology, linking brain and environmental factors to

specific types of activity, is the hypostatic model of personality, created by Codrin Stefan Tapu.

Temperament

In psychology, **temperament** refers to those aspects of an individual's personality, such as introversion or extroversion, that are often regarded as innate rather than learnt. A great many classificatory schemes for temperament have been developed; none, though, has achieved general consensus.

Historically, the concept of temperament was part of the theory of the four humours, with their corresponding four temperaments. The concept played an important part in pre-modern psychology, and was explored by philosophers such as Immanuel Kant and Hermann Lotze. David W. Keirsey also drew upon the early models of temperament when developing the Keirsey Temperament Sorter. More recently, scientists seeking evidence of a biological basis of personality have further examined the relationship between temperament and character (defined in this context as the learnt aspects of personality). However, biological correlations have proven hard to confirm.

Temperament is determined through specific behavioural profiles, usually focusing on those that are both easily measurable and testable early in childhood. Commonly tested factors include irritability, activity, frequency of smiling, and an approach or avoidant posture to unfamiliar events. There is generally a low correlation between descriptions by teachers and behavioural observations by scientists of features used in determining temperament.

Temperament is hypothesized to be associated with biological factors, but these have proven difficult to test directly.

Character structure

A **character structure** is a system of relatively permanent motivational and other traits that are manifested in the specific ways that an individual relates and reacts to others, to various kinds of stimuli, and the environment that will most likely bring about a normal or productive character structure. On the other hand, a child whose nurture and/or education are not ideal, living in a treacherous environment and interacting with adults who do not take the long-term interests of the child to heart will be more likely to form a pattern of behavior that suits the child to avoid the challenges put forth by a malign social environment. This means that the child invents to make the best of a hostile environment. Although this may serve the child well while in that bad environment, it may also cause the child to react in inappropriate ways, ways damaging to his or her own interests, when interacting

with people in a more ideal social context. Major trauma that occurs later in life, even in adulthood, can sometimes have a profound effect. See post-traumatic stress disorder. However, character may also develop in a positive way according to how the individual meets the psychosocial challenges of the life cycle (Erikson).

Freud's first paper on character described the anal character consisting of stubbornness, stinginess and extreme neatness. He saw this as a reaction formation to the child's having to give up pleasure in anal eroticism. The positive version of this character is the conscientious, inner directed obsessive. Freud also described the erotic character as both loving and dependent. And the narcissistic character as the natural leader, aggressive and independent because of not internalizing a strong super-ego.

For Erich Fromm character develops as the way in which an individual structures modes of assimilation and relatedness. The character types are almost identical to Freud's but Fromm gives them different names, receptive, hoarding, exploitative. Fromm adds the marketing type as the person who continually adapts the self to succeed in the new service economy. For Fromm, character types can be productive or unproductive. Fromm notes that character structures develop in each individual to enable him or her to interact successfully within a given society, to adapt to its mode of production and social norms, (see social character) may be very counter-productive when used in a different society.

Fromm got his ideas about character structure from two associates/students of Freud, Sándor Ferenczi and Wilhelm Reich. It is Reich who really developed the concept from Ferenczi, and added to it an exploration of character structure as it applies to body structure and development as well mental life.

For Wilhelm Reich, character structures are based upon blocks--chronic, unconsciously held muscular contractions--against awareness of feelings. The blocks result from trauma: the child learns to limit his awareness of strong feelings as his needs are thwarted by parents and they meet his cries for fulfillment with neglect or punishment. Reich argued for five basic character structures, each with its own body type developed as a result of the particular blocks created due to deprivation or frustration of the child's stage-specific needs.

The schizoid structure, which could result in full blown schizophrenia: this is the result of a wound of not feeling wanted by hostile parents, even in the womb. There is a fragmentation of both body and mind with this structure.

The oral structure: from deprivation of warmth and milk from the mother, around age 1. The oral structure adopts an attitude of "you do it for me, because you didn't nurture me when I was young." Shoulders are usually hunched, head bent forward, wrists and ankles weak, as if to say, "I can't get it for myself."

The masochist structure: this wound occurs when the parent refuses to allow the child to say "no," the first step in setting boundaries. The child seeks relief from the rage that builds up underneath bounded muscle and fat, by provoking others to punish him.

The psychopath or upwardly displaced structure: this wound, around the age of 3, is around the parent manipulating, emotionally molesting the child, seducing him into feeling he is "special," for her (the parent's) own narcissistic needs. The child concludes he must never again permit himself to be vulnerable, and so decides he will instead manipulate and overpower others with his will. The body is well developed above, weak below, as the psychopath pulls away from the ground and attempts to overpower from above. This structure has variations, depending on the admixture with prior wounds: the overbearing is the pure type, the submissive is mixed with oral, the withdrawing, with schizoid.

The rigid: this wound occurs around the time of the first puberty, the age of 4. The child's sexuality is not affirmed by the parent, but instead shamed or denied. This structure seeks to prove to the parents and others that he is worthy of love. He is often beautifully harmonious, but there is a physical split around the diaphragm between heart and pelvis: love and sex. This person has trouble with being aware of his emotions, which are strong, yet buried. This rigid structure has many substructures, depending on the exact nature of the wound, the admixture with other pre-rigid (oedipal) structures, and the gender: in women, the masculine aggressive, hysterical, and the alternating; in men, the phallic narcissist, the compulsive, and the passive feminine.

While each of these structures has blocks, and these blocks to some degree resemble "armour," it is only the rigid structure that truly has what Reich called "character armour": a system of blocks all over the body. Depending on which version of rigid one is, the rigid character possesses either 'plate' (i.e. clanky) or 'mesh'(much more flexible) character armour.

Disorders of Personality

Psychopathy is a psychological construct that describes chronic disregard for ethical principles and antisocial behavior. The term is often used interchangeably with sociopathy. This is a

commonly made mistake. Sociopathy is no longer a correct term to use, and when it is used it actually refers to what is considered Antisocial Personality Disorder. Psychopaths are not diagnosed because there is no current diagnostic criteria in the DSM-IV-TR. Instead, labeling a person a psychopath would be done through a forensic measurement such as the Hare PCLR-2, and would refer to the set of behavioral and emotional characteristics that person has (this would be similar to labeling someone an extrovert - they are not diagnosed as extroverts). In the ICD-10 diagnosis criteria, the terms antisocial/dissocial personality disorder are used.

The term is used as a definition in law, for example, "psychopathic personality disorder" under the Mental Health Act 1983 of the UK as well as to denote a severe condition often related to antisocial or dissocial personality disorder as defined by the Psychopathy Checklist-Revised (PCL-R). The term "psychopathy" is often confused with psychotic disorders. It is estimated that approximately one percent of the general population are psychopaths.

The psychopath is defined by an uninhibited gratification in criminal, sexual, or aggressive impulses and the inability to learn from past mistakes. Individuals with this disorder gain satisfaction through their antisocial behavior and lack remorse for their actions.

Accentuation personality – it's a borderline deviation of the normal personality, which characterized by depressed or evaluated some character's peculiarities that may result in person's hypersensitivity to some specific psychotraumatic situations.

There are many types of personality's accentuations (**by Karl Leonhard**):

- **Cycloid type** – change phases of good and bad mood with different duration.

- **Hyperthymic type** – permanent evaluation of mood with high level of chaotic psychic activity.

- **Labile type** – abrupt changes of mood according to the situation.

- **Asthenic type** – quick appearance of fatigue, irritability, disposed to depression state and hypochondria.

- **Sensitive type** – high level of sensitivity, fears, anxiety, feeling of self-good-for-nothing.

- **Psychasthenic type** - high level of anxiety, suspiciousness, indecision, disposed to self-analysis, permanent doubts and tendencies to obsessive ritual acts.

- **Schizoid type** – isolating, introverting, emotion's alienating, absence of care about relatives, difficult in emotion's contacts.

- **Epileptoid type** – tendencies to dysphoric mood, social conflicts, pedantic behaviour, disposed to anger's attacks.

- **Paranoid type** - high level of suspiciousness to another, touching, domination of negative emotions, tendencies to social dominate, disposed to conflicts.

- **Hysterical type** – expressive tendencies to ignore unpleasant subjective factors and acts, disposed to lies, fantasizing as methods of social manipulations, adventuristic acts, vanity, “escape to illness”.

- **Disthymic type** – bed mood domination, disposed to depression, concentration on the dark sides of the life.

Personality tests

There are two major types of personality tests. **Projective** tests assume personality is primarily unconscious and assess an individual by how he or she responds to an ambiguous stimulus, like an ink blot. The idea is unconscious needs will come out in the person's response, e.g. an aggressive person may see images of destruction. **Objective** tests assume personality is consciously accessible and measure it by self-report questionnaires. Research on psychological assessment has generally found objective tests are more valid and reliable than projective tests.

Examples of personality tests include:

- Holland Codes
- Keirsey Temperament Sorter
- Kelly's Repertory Grid
- Minnesota Multiphasic Personality Inventory
- Morrisby Profile
- Myers-Briggs Type Indicator
- NEO PI-R
- ProScan Survey by PDP
- Rorschach test
- Thematic Apperception Test

Critics have pointed to the Forer effect to suggest some of these appear to be more accurate and discriminating than they really are.

PART II

Special Medical Psychology

CHAPTER VIII

PSYCHOLOGY OF MEDICAL PROCESS

Objectives: to study psychological aspects of the medical process, to learn how to communicate with concrete patients in different forms of pathology taking into consideration psychological peculiarities of these patients.

The process of treatment of every disease is accompanied by a number of psychological phenomena closely connected with the personality of the patient and the doctor, as well as the applied therapeutic methods which produce both the positive and (sometimes) negative effects. Consideration of the psychological factors in the medical process makes it possible to obtain a more profound assessment for the efficacy of the therapy and prognosis. Assessment of the therapeutic dynamics in the somatic, psychological and social planes should be regarded as the most adequate one.

Organizing the medical process, it is important to take into account the attitude of each particular patient to his disease, this attitude being significantly dependent on the inner picture of the disease, i.e. a complex of feelings and sensations of the patient, his emotional and intellectual responses to the disease and its treatment. The inner picture of the disease does not consist only of the subjective complaints of the patient, but also includes his emotional and intellectual attitude dependent upon the personality peculiarities, the general cultural level, the social medium and upbringing. The attitude of the patients to their disease may be as follows.

1. **Normal**, i.e. corresponding to the patient's state or the information given to him about the disease.

2. **Scornful**, when the patient underestimates the severity of his disease, is not treated and does not take any care of himself, as well as demonstrates ungrounded optimism with respect to the prognosis of the disease.

3. **Denying**, when the patient «does not pay attention to the disease», does not take medical advice, fights back any thoughts on his disease and reasonings about it; it also includes dissimulation.

4. **Nosophobic**, when the patient is disproportionately afraid of the disease, undergoes repeated examinations, changes his doctors; to a greater or less degree he understands that his fears are exaggerated but cannot fight them.

5. **Hypochondriac**, when the patient guesses or is sure that he suffers from a severe disease, or when he overestimates the severity of some less serious disease.

6. Nosophilic, connected with some calming and pleasant sensations during the disease; it proceeds from the fact that the patient should not perform his duties, the children can play and dream, the adults can read or be engaged in some of their hobbies; the family is attentive to the patient and takes more care of him.

7. **Utilitarian**, which is the highest manifestation of the nosophilic response. It can have a triple motivation:

a) receiving of sympathy, attention and a better examination;

b) finding a way out of some unpleasant situation, as, for instance, imprisonment, military service, hated work, obligation to pay alimony;

c) receiving of material benefits: pension, vacation, free time which can be also used with some economic benefit.

The utilitarian response can be more or less deliberate; it may be based on some slight or severe disease, but sometimes is observed even in a healthy person.

The utilitarian response can be manifested with different forms of the patients' behaviour: aggravation, simulation and dissimulation.

Aggravation is exaggeration of signs of the disease and subjective complaints. This exaggeration can be completely deliberate, but sometimes is rather caused by emotional motives of a deeper origin, e.g. fear, distrust, feeling of solitude, hopelessness, suspect that the doctor does not believe him. Transitions from the deliberate aggravation to a less deliberate one are sometimes rather unostentatious, and in some cases even hardly perceptible.

Simulation is a pretence with the help of which a person tries to create an impression that there is a disease and its signs. It occurs less frequently than aggravation. As a rule, it is used only by very primitive persons in whom its revealing can be relatively easy, or, on the contrary, by well-experienced, pushful and irresponsible persons. A great risk for the malingerer is incurred by the fact that he strives for a certain benefit, this aim being revealed sooner or later. If he does not reach his aim, e.g. receives a pension promising

him a well-to-do life with a possibility to earn extra money, this circumstance cannot be concealed from surrounding people and revision of the case will put an end to the simulation. The doctor should not be in a hurry to make a conclusion about simulation until he absolutely makes sure that his suspicions are correct. In this case, a less experienced doctor must always consult his more experienced colleague. Substantiation and argumentation of simulation are particularly important in case of drawing a written conclusion about it. Substitution of the wording "a deliberate production of signs" or "an attempt of a deliberate affected representation of a disease" for the word "simulation" in a medical conclusion is more expedient.

Dissimulation means concealing of the disease and its signs. It often occurs in psychiatry in cases of psychoses. As far as other patients are concerned, it is mainly observed in the diseases resulting in some objective or subjective disadvantages for the patient, e.g.: in tuberculosis it is a prolonged staying at a sanatorium, syphilis is accompanied by notification about the disease and revealing of the focus of the infection, surgery is fraught with a possible operation. The greater is the extent of saving the patient from the fear of the forthcoming examination, treatment and consequences of the disease, the more successful is prevention of dissimulation.

The success of the medical influence does not depend only upon the psychological peculiarities of the patient, but first of all is determined by the moral make-up of the doctor whose professional activity radically differs from that of any other specialist. The life makes great demands of the doctor as a specialist. First of all, they include a high professionalism, an aspiration for a constant enrichment of his own knowledge. The doctor must be a person of high moral standards whose authority is established by profound knowledge in his field, a personal charm, modesty, optimism, honesty, truthfulness, justice, selflessness and humanism.

A sincere and deep personal interest of the doctor in elimination of the patient's ailments gives rise to inventiveness in the forms of help. Confidence in the doctor often depends upon the first impression which develops in the patient during the first meeting with his doctor, the doctor's urgent facial expression, gesticulation, tone of his voice, expressions, as well as his appearance: if the patient sees that his doctor is untidy and sleepy for some reasons which are not caused by his work, he loses any belief considering that a person who is not able to take care of himself cannot care for others and be reliable in his work. The patients are rather inclined to excuse different deviations in the external manifestations and

appearance of those medical workers whom they already know and in whom they already have confidence.

The medical worker gains his patients' confidence in the case if, as a personality, he is harmonious, quiet and positive, but not haughty, and if his manner of behaviour is rapid, persistent and decisive, accompanied by humane sympathy and delicacy. Taking every serious decision, the doctor must imagine the results of its effect on the patient's health and life. The necessity of having patience and control over himself makes particular demands of him. He must always consider various possible ways in the development of the disease. It is not easy for the doctor to combine in his work the necessary thoughtfulness and reasonableness with the required decisiveness and coolness, optimism with a critical attitude and modesty.

For the patient, an even-tempered personality of the doctor is a complex of harmonious external stimuli whose effect participates in the patient's recovery. The medical worker must bring up and form his personality, firstly, observing a direct response to his behaviour (by the talk, assessment of the facial expression and gestures of the patient) and, secondly, in an indirect way, when his behaviour is assessed by his colleagues. It requires some effort, a certain critical attitude towards himself and a necessary measure of culture which must go without saying for the medical worker.

The patients' confidence in a younger medical worker with a less life experience and less skills becomes more perfect owing to his honesty, modesty and readiness to render help.

The patient loses his confidence and the medical worker loses his authority in the case when the patient gains the impression that the medical worker is a so-called «bad person». Such an impression may be created by the doctor's behaviour if he speaks bad about his colleagues, treats his subordinates haughtily and toadies up to his bosses, displays vanity, lack of criticism, garrulity and malicious joy. The vanity is demonstrated, for instance, when the doctor does not apply to his more experienced colleague for consultation or exaggerates the severity of the disease for the patient in order to receive more recognition and admiration after the patient's recovery. More serious personal shortcomings of the medical worker may lead the patient to the suggestion that a doctor or a nurse with such streaks cannot be honest and reliable in serving their duties either.

The literature describes some possible psychological types of doctors:

1. «Compassionate» — tender-hearted, merciful, easily responsive to the patient's sufferings.

2. «Pragmatic» — taking into consideration only the objective side of the disease in the work with his patients, does not pay any attention to the patients' sufferings.

3. «Moralist» — inclined to moral admonitions and indignant if the patient doubts or does not follow his doctor's recommendations.

4. «Diligent» — honest in his work, serious, assiduous, industrious and not inclined to joke with the patients.

5. «Activist» («public worker») — prefers solving of various organizational problems and serving of social duties in the medical institution to work with his patients.

6. «Dogmatic» — strictly follows the mastered diagnostic and therapeutic directions and schemes, hardly apprehends any new things.

7. «Technocrat» — overestimates the significance of laboratory and apparatus data, does not attach any importance to the patients' sufferings and other subjective aspects of the disease.

8. «Psychotherapist» — tries to grasp the patient's sufferings, help him with a piece of advice or making him change his mind.

9. «Sybarite» — likes cosiness and comfort, the patients irritate him with their complaints, he does not consider much their opinion and is inclined to the Bohemian mode of life.

10. «Artist» — inclined to demonstration of his knowledge and professional skills to the patients and their relatives, depending upon the conditions he plays parts of various doctors, namely: «hesitating», «attentive», «luminary», etc..

11. «Bored idler» — a high self-estimation with a rather modest stock of knowledge, stereotyped diagnosis and administration of treatment, a scornful attitude towards his inquisitive colleagues.

12. «Misanthrope» — a doctor under compulsion: a lack of any calling for the doctor's activity is displayed through the absence of such streaks as mercifulness, kindness, as well as through rudeness, a disgusted attitude towards the patients and malicious jokes.

The above scheme does not exhaust the whole variety of psychological types of doctors. It should be taken into account that formation of some or other type of the doctor is to a considerable extent dependent upon his upbringing.

Some prerequisites for establishing positive relationships between the doctor and the patient appear even before they come into direct contact. As a rule, the patient coming to the doctor knows about him more than the doctor about the patient. Reputation of the health service in general and the medical institution where the patient comes in particular is of importance too. Tension, dissatisfaction and anger of the patient who had to get

to the doctor by an uncomfortable transport and, moreover, wait his turn for a long time at the reception room may often become inadequately apparent when meeting a nurse or a doctor who have not the slightest idea of the causes of this reaction and groundlessly explain it as a hostile attitude towards them.

It is also necessary to mention a possible action of «the transfer of the aesthetic stereotype». Beautiful people rather arouse sympathy and confidence, while plain ones stir up antipathy and uncertainty. In this way, the notion of beauty is associated with good features, and ugliness with evil. Despite the fact that this supposition is groundless, it subconsciously produces a rather strong effect: an outwardly attractive patient arouses more sympathy in the doctor even if in reality he requires less help than a patient whose appearance stirs up antipathy. And, on the contrary, the doctor acting esthetically positively arouses more confidence.

In making contact with the patient, the first impression created by the doctor on him is important. It is also influenced by the general atmosphere of the medical institution and behaviour of all its workers: auxiliary personnel, administrative staff, the nurse on reception and registration of the patient. During the first contact with the doctor the patient must gain the impression that the doctor wants to help him. The doctor is obliged to control himself to such an extent that all common norms of the social contact were observed. It means that he must personally introduce himself to the patient, if the latter is not acquainted with him, and hold out his hand. Such behaviour calms the patient, develops a feeling of safety in him and increases his consciousness of the personal dignity.

To give the patient an opportunity for a free and uninterrupted account of his sufferings, problems, complaints, troubles and fears is one of the prerequisites for developing a positive attitude. The doctor should not demonstrate that he is very busy, though it may be in reality. The doctor must «resound to the patient's statements» with his own personality. If the patient is not given an opportunity to express his opinion to a necessary extent, he often complains that the doctor «has not listened to him at all» and he has not been examined in compliance with all the rules, though in reality all the necessary things were made. From the patient's side, such cases reveal dissatisfaction that he is neglected as a personality. A talkative patient, an extroverted type achieves psychic ventilation easier; moreover, he even excites curiosity of the doctor in his account if it is entertaining. But actually the above psychic ventilation is more necessary for a concealed introverted type who conceals his problems, complaints and sometimes even signs of a disease as a result of timidness, shame or exaggerated modesty.

Confidence is the main component in the patient's attitude to his doctor. Nevertheless, gaining of the confidence does not proceed only from the psychological aspect of the relations between the doctor and the patient, but it also has a broader social aspect. The doctor can gain the confidence of his patient and establish positive contact with him through satisfying his groundless demands. Development of such relations usually proceeds from the mutual satisfaction of the interests, where one side is presented by the doctor and the other one with the patients who may render him some service, but thereby affecting the effective and actually necessary examination of all the patients that in the first place must be performed from the viewpoint of their diseases, but not depending upon their social standing or abilities.

A psychological problem arises also in those cases when the doctor notices that his relations with the patient develop in an unfavourable direction. Then the doctor should behave with restraint and patience, resist any provocations, do not provoke himself and try to gradually gain his patient's confidence with calmness and understanding.

Medical practice knows cases when the doctor experiences diagnostic difficulties that sometimes result in medical mistakes. There are objective and subjective causes of these mistakes.

A medical mistake means a delusion of the doctor with absence of any negligence, carelessness or a thoughtless attitude to his duties. Medical mistakes are often caused by peculiarities in the doctor's personality and character, as well as by how he feels rather than by his insufficient professional training and qualification. This subjective factor accounts for 60 — 70 % of the total number of mistakes.

Sometimes mistakes are caused by the doctor's sluggishness, indecision, diffidence, insufficient constructiveness of his thinking, inability to correctly and rapidly orientate himself in a difficult situation, an insufficiently developed ability to correctly and logically compare and synthesize all the elements of the information obtained about the patient. Unwarranted caution taken by the doctor may be extremely dangerous in situations when the patient's state requires prompt and decisive actions,

On the other hand, unwarranted self-confidence which is not supported by real evidence sometimes results in making «popular» florid diagnoses.

Such peculiarities in the doctor's character as optimism or pessimism may play a part in a wrong prognostic assessment of the severity of a disease. The doctor must always really assess the true situation and should not take the desired thing for the real one.

Diagnostic mistakes may also result from the fact how the doctor feels, his asthenic states, the feeling of tiredness and sleepiness.

The paramount significance of personality peculiarities in the medical profession must be assessed during the professional selection for higher medical schools. If the applicant's individual personality peculiarities, interests and inclinations do not satisfy the demands of medical deontology he should not choose the profession of a doctor.

The work of the nurse who spends much more time in direct contact with the patient than the doctor is of great importance at in-patient medical institutions. The patient seeks for understanding and support from her. She must both professionally master the skills of caring for her patients and know the rules of the psychological approach to them, as a lack of knowledge of these rules often results in the fact that the patients express their «displeasure» and protest against the «formal» and «barrack» behaviour of some nurses despite the fact that from the physical viewpoint the care for them was good. On the other hand, the development of relationships between the nurse and the patient is sometimes fraught with appearance of both a danger of not keeping a certain necessary distance and an aspiration to a flirt or helpless sympathy. The nurse must be able to manifest her understanding of the patient's difficulties and problems, but should not seek to solve these problems.

Depending upon their character and attitude to the work, the following individual types of nurses are separated.

1. The practical type, characterized by accuracy and strictness, sometimes forgetting the humane side of the patient. In a paradoxical form it may be sometimes manifested by the fact that she awakens a sleeping patient in order to give him some soporific.

2. The artistic type, characterized by affected behaviour; without any sense of proportion, such a nurse tries to impress the patient and be pompous.

3. The nervous type; such a nurse is often tired, irritated and the patients do not feel calmness near her. She subconsciously tries to evade some duties; for example, out of apprehension to be infected.

4. The male type of the nurse, with a strong constitution: she is resolute, energetic, self-confident and consistent. The patients characterize her behaviour as «military». In a favourable case, she becomes a good organizer and successfully trains young nurses. In an unfavourable case, such nurses may be primitive, aggressive and despotic.

5. The maternal type of the nurse, a «sweet nurse», often with a pyknic constitution.

6. Nurses-specialists who work, e.g., on an electrocardiograph or electroencephalograph; sometimes they have a feeling of superiority over the nurses working at departments; if they do not conceal this attitude, it may result in tense relations between them and other personnel.

Medical deontology

Organizing the work of different medical institutions, one should proceed from the basic statements of the medical deontology and ethics.

Medical deontology and ethics are the whole complex of principles of regulation and standards of behaviour for the doctor and other medical workers conditioned by the specific character of their activity (care for other people's health, treatment, etc.) and position in the society.

Deontology (the science about the due) is the teaching of behaviour principles of the medical personnel contributing to creation of the necessary psychoprophylactic and psychotherapeutic situation in the diagnostic and medical process excluding negative consequences (it is a part of the medical ethics).

Medical deontology and ethics also envisage a high level of training of the nurses, their accuracy and honesty in carrying out the doctor's administrations with regard for the age, individual peculiarities, disease and morbid state of the patients, tactfulness and a psychotherapeutic approach of the nurses and practical nurses in attending to the patients and work with their relatives.

The very atmosphere of the medical institution should dispose the patients to a frank and heart-to-heart talk, arouse their faith in recovery; as early as in the registry the patients should understand that everything at the polyclinic is directed to help them and alleviate their sufferings. It is necessary to calm the patient and give him the feeling of confidence. One should exclude any conditions of strictness and ostentatious business-like efficiency. Visual aids at the polyclinic (stands, posters) must not arouse any feelings of fear and alertness in the patients or remind them of their diseases. The polyclinic should be comfortable and clean, the rooms should be located proceeding from the patients' comfort.

It is also very important to establish the protective regimen at the in-patient departments. Much depends upon the patients' contact with their doctor. It is necessary to start a conversation with the patient talking to him but not looking through results of his analyses; the doctor should thoroughly think over every word addressed to his patient and avoid using slangy words. The round

of wards at the departments should be made every day and better at the same time; it is not recommended to ask and elucidate any intimate details in other patients' presence during the rounds, as these details are connected with the patient's life and disease.

The doctor should display great tact and delicacy in the case when he has to change the treatment administered by another doctor. It is prohibited to tell the patient that he was treated incorrectly as it may shake his faith in medicine on the whole.

An important aspect of the doctor's activity consists in the medical secret which is defined as follows: the medical secret means any information which is not to be made public and includes data about the patient's disease and personal life obtained from him or revealed in the process of his examination and treatment, i.e. when the medical worker performs his professional duties. Any data concerning the functional peculiarities of the patient's organism, corporal defects, bad habits, peculiarities of his mentality and, finally, his private property, circle of acquaintance, interests, hobbies, etc., rather than only the disease itself should not be made public. The purpose of the medical secret is to prevent cases of causing the patient and other persons any possible moral, material and medical harm.

Lack of satisfying the requirements of deontology and medical ethics results in development of iatrogenies.

Iatrogenies

Iatropathogeny, contracted to iatrogeny (iatros = doctor, gennao = to do, to produce), is such a method of examination, treatment or carrying out prophylactic measures that results in causing harm to the patient's health by the doctor. In the broader sense of the word, it means the harm to the patient done by a medical worker. In this connection, the term «sorrorigeny» is used; it means the harm caused by a nurse (sorrorigeny = nurse), like other fields use the term «didactogeny», or «pedagogeny», i.e. causing of harm to a pupil by his teacher in the process of training.

Somatic iatrogeny is distinguished, where the harm may be done by using drugs (e.g. allergic responses after administration of antibiotics), mechanical manipulations (surgical operations), irradiation (X-ray examination and radiotherapy), etc. Somatic iatrogeny which is through no fault of medical workers may result from an unusual and unexpected pathological responsiveness of the patient, e.g. to the drug which causes no complications in other cases.

Sometimes they are due to an insufficient skill of the doctor, peculiarities in his personality, temperament and character, as well as his mental state, e.g. inability to focus his attention in cases of

tiredness and haste. The cause of a harmful effect of some unsuccessfully chosen drug consists, first of all, in the person who administered it rather than in the drug itself.

Psychic iatrogeny is a type of psychogeny. The latter means the psychogenic mechanism in the development of a disease, i.e. development of the disease caused by psychic effects and impressions. Psychic iatrogeny includes a harmful psychic effect produced by the doctor on his patient through words and all means of contacts among people which have their effect on the whole organism of the patient rather than on his mentality only.

Possible sources of iatrogenies are mentioned below.

An incorrect provision of medical education and popularization of data of the medical science may become a collective source of psychic iatrogeny. In the process of sanitary-instructive work, it is prohibited to describe the signs of a disease without their purposeful selection and give a full objective description of the treatment. It is necessary to focus attention only on those facts and circumstances that can help persons without any medical education get a real idea of the disease and the necessary information how to prevent it. If the listeners have no medical education, the medical worker should not discuss the differential diagnosis even if they ask questions concerning their personal signs and complaints, but the whole picture of the disease and its treatment is unknown. Such explanations may be given during individual sanitary-instructive work with sick and healthy persons.

In the process of preventive medical examinations at factories, examinations of the men called up for military service, donors, sportsmen, expectant mothers (these measures are directed at promoting good health for the population) doctors may often reveal some accidental and insignificant abnormalities, e.g. unimportant deviations on an electrocardiogram, minute gynaecological or neurological signs, etc. If the examinee gets to know about these deviations, their meaning should be immediately explained to him, otherwise he may think that they are very serious and it is for this that he was not informed about them. However it is better to do preventive examinations in such a way that the examinee (does not get any information about these insignificant deviations.

Mentality is affected by a «medical labyrinth». The patient seeks for medical advice but is sent from one doctor to another, and everywhere he is said that he «should be treated by another doctor», with different degrees of politeness he is not rendered any aid. The feelings of dissatisfaction, tension and anger begin to grow in the patient, he is afraid that for this reason his disease will become neglected and difficult for treatment.

The following types of iatrogeny are distinguished:

1. Etiological iatrogeny, e.g. iatrogeny due to overestimation of heredity; the doctor's phrase («It is hereditary») causes hopelessness in the patient, the latter fears that the same bad fate will overtake the other members of his family.

2. Organolocalistic iatrogeny develops in the case where the doctor explains undiagnosed neurosis, i.e. a functional psychogenic disease, as an organic local process in the brain, e.g. thrombosis of the cerebral vessels.

3. Diagnostic iatrogeny, when an ungrounded diagnosis which later undergoes unsuccessful changes becomes a source of a psychic trauma for the patient.

Some words produce, so to say, a «toxic» effect on the patient; first of all, these are «infarction, paralysis, tumour, cancer, schizophrenia»). Therefore it is better to avoid these expressions. Sometimes iatrogenies are caused by unclear statements made by the doctor,

Even seemingly harmless statements made in the patient's presence at an X-ray room result in his unexpected traumatism, particularly if they are pronounced with some significance or surprise.

◆ Therapeutic iatrogeny develops in the process of treatment. Its example can be provided by the use of some drug about which the patient knows that it did not help him in the past. Here a negative placebo effect is produced. Therefore prior to administration of any treatment it is recommended to check the case history how effective was the treatment previously used. As a rule, it is often forgotten because of a lack of time. Therapeutic iatrogeny is facilitated by a so-called therapeutic nihilism, i.e. a pessimistic viewpoint of the doctor on the supposed results of the treatment.

◆ The process of treatment may be characterized by pharmaceutogeny, i.e. causing of some harm to the patient by a lame statement of the pharmacist. Patients often demand from the pharmacist to explain the features and effects of the drug administered by the doctor. It is dangerous to use such statements as «It is too potent for you» or «It is no good at all, but I have got something better».

◆ Prognostic iatrogeny proceeds from an unsuccessfully formulated prognosis of the disease. From this viewpoint, such cynical and openly traumatizing statements as, e.g. «You have only a few hours to live», deserve censure. However, both straightforward and peremptory optimistic statements are of a questionable value even in the case when the doctor believes that using them he will suggestively produce a positive effect on the patient. Such

statements as «In a week you will be sound as a bell, upon my word!» may become false and will shake the patient's confidence in his doctor in future.

Besides the above situations and circumstances, sources of iatrogeny may be also found in the medical worker's (first of all, the doctor's) personality; e.g. in his unwarrantedly peremptory statements, excessive self-conceit: an omniscient doctor. Such a personality easily suggests the patient his opinions and viewpoints. Personalities of the peremptory type easily substitute absolute confidence for a good possibility in their statements. But the opinion once formed does not enable them also to watch other potential features in the process of the development of the disease; the above features may become predominant, e.g. during the transition of the disease from the syndrome of bronchitis initially diagnosed as a common disease to a malignant process.

The diffident and doubting doctor, as a type of personality, is at the opposite pole. The patient often explains himself the way of the doctor's behaviour conformably to his disease, e.g. the doctor's hesitations are regarded as proof of the severity or even incurability of his state. The doctor increases this impression by the fact that he «thinks aloud», tells the patient about all possibilities of the differential diagnosis, does not complete a long line of auxiliary methods of examination and leaves the patient without any treatment for this time or gives him the initiative with respect to the kind of treatment, e.g. with such words as «If only I knew what to do with you!» The doctor should always be an artist in the correct understanding of the meaning of this word; he should be able to conceal from the patient a possible difficulty and, in the majority of cases, some temporary uncertainty about his diagnostic and therapeutic approach. The doctor's subjective uncertainty should not affect his objective behaviour.

The patient's personality may be another source of iatrogeny. A timorous, frightened, diffident, emotionally vulnerable and mentally inflexible patient is recognized by his tense facial expression, an increased sweating of his palms when shaking hands, often also by some fine motor tremor. He is inclined to timorously interpret our wordy or other manifestations, frequently even those ones that are not of any significance for us. We may be additionally surprised how such a patient understands our silence or a tired gesture of a hand that are regarded by him more important than words. The nurse may observe how such a patient restlessly walks at the waiting-room before his turn comes, how he lively participates in talks of other patients about diseases or quietly and with strained attention listens to them. Other patients would try to get

insignificant details from the nurse before going to the doctor. It is necessary to tell the nurse that she should inform the doctor about such patients.

Sometimes the role of the patient's personality in the («iatrogenic impairment») can be so pronounced and decisive that the question is not of iatrogeny proper, but pseudoiatrogeny which is through no fault of the doctor. Pseudoiatrogeny develops in the cases when the patient cites such statements of the doctor which he has never made or isolates only separate parts from the doctor's explanation.

At present much attention is paid to training general practitioners, i.e. family doctors.

The general practitioner (family doctor) works following the principle of the district doctor, hereby attending to adults, teenagers and children and performing the following functional duties:

— organization of and carrying out a complex of measures for general prophylactic medical examination of the population in his district, elaboration of individual complexes of prophylactic, medical and health-improving measures for each resident of the district, prophylactic inoculations and dehelminthization of the population, popularizes principles of the healthy mode of life; — rendering of the opportune medical aid to the adults and Children of the district in charge.

The general practitioner (family doctor) must know:

- ◆ fundamentals of medical psychology, social hygiene, organization of public health and economics in compliance with the tasks of health control for the population of the district in charge;

- ◆ fundamentals of general theoretical subjects within the scope required for solving professional tasks;

- ◆ anatomical-physiological and psychological peculiarities of the adults, children and aged people, peculiarities in the development of healthy children and teenagers, contemporary classifications of internal diseases in children and adults; health groups and risk factors in the development of diseases;

- ◆ causes of appearance of pathological processes in the organism, mechanisms of their development, the course of diseases depending upon the sex and age, their clinical manifestations and main syndromes;

- ◆ clinical picture, diagnosis and prevention of mental diseases and narcomanias (disturbances of perception, memory, thinking, mentality, the sphere of emotions, attention, drives, unrestricted activity and consciousness, the above aspects of psychoses related to somatic diseases, as well as those of schizophrenia and the manic-depressive syndrome, epilepsy, psychoses of the involutional

period, neurasthenia, obsessive-compulsive neuroses, hysteria, psychopathies, mental retardation, alcoholism and alcoholic psychoses, narcomaniae and toxomaniae);

- ◆ fundamentals of examination in mental diseases;

- ◆ fundamentals of resuscitation, clinical picture, diagnosis and principles of treating main emergencies;

- ◆ pharmacotherapy of the most common diseases, the mechanism of effect and doses of the main drug preparations,

The general practitioner must know the aspects of psychohygiene and psychology of the family, attitude of the members of the family to their health, responses of the family to stresses, psychological problems of the family, attitude of the members of the family to sick persons (alcoholism, narcomanias, psychosexual disturbances).

The family doctor must be able:

- ◆ to take case history of sick and healthy persons using psychodeontological regularities of communication, to determine the mental state of the patient (stress, anger, fear, joy, etc.), streaks of his character, temperament, the level of mental development, anxiety and alarm;

- ◆ to observe the mental activity of people, to use the method of rational psychotherapy;

- ◆ to diagnose nervous system disturbances (craniocerebral symptoms, autonomic dystoniae, polyneurititides, plexititides, radiculopathies, autonomic-endocrine disturbance of the hypothalamic localization, brain concussion and contusion);

- ◆ to determine the state of the processes of perception, memory, thinking, attention and purposeful activity, consciousness and mentality, to diagnose affective disturbances, neuroses, psychopathies, alcoholism and narcomanias.

Successful performance of his professional functions by the family doctor is possible if only he has such most important personal streaks and skills as:

- ◆ humanism and justice, mercy and sincerity, tactfulness and affability in relations with other people; modesty and delicacy;

- ◆ possession of high culture, a regular execution of instructive and educational work among the population, the work for strengthening the healthy mode of life;

- ◆ initiative, discipline, careful fulfillment of his obligations, loyalty to Hippocratic oath, honesty and self-discipline in his work, a principled and exacting attitude to himself and other members of the staff; a systematic increase of his professional knowledge and skills;

◆ an ability to be an attentive interlocutor and communicable in contacts with the patients and their relatives, an ability to memorize and effectively use the general and specific information (obtained in the process of intercourse with them) for prophylaxis and treatment;

◆ an aspiration to a collegiate solution of professional problems in the staff of the polyclinic (out-patient department); efficient performance of his functions as an organizer of the work and an educator of the junior medical and paramedical personnel; preparedness for business contacts with trade unions and administration (management) of enterprises in the populated area or settlement where the patients attended to the general practitioner live or work;

◆ neatness, tidiness, an immaculate appearance which attracts the patient to communication with his family doctor.

CHAPTER IX

PSYCHOLOGY OF COMMUNICATION. BASIS OF CONFLICT STUDY

Objectives: to study the means of communication, types of communication, functions of communication. To learn the basic concepts of conflict study.

Communication (personal contacts) is a complicated process of establishing relations between people resulting in mental contacts which include information exchange, mutual influence, mutual experience and mutual understanding.

Functions of personal contacts are as follows: information, regulation, affective. The following interrelated aspects can be distinguished in the process of communication: communicative (consists in information exchange), interactive (act exchange), perceptive (mutual understanding between partners).

Depending on the characteristics of the partners communication may be:

- interpersonal;
- individual-group;
- collective-individual;
- group.

The **communicative** aspect of personal contacts is associated with revealing specific features of information process between people as active subjects, that is with the account of the relations between the partners, their purposes, aims, intentions, which results in information transmission and enrichment of the knowledge, thoughts, ideas with which the communicants exchange. The means of the process of communication are different systems of signs, language, in particular, as well as non-verbal means: mimics, gestures, pantomimic, posture of the partners, paralinguistic systems (intonation, non-verbal elements of speech, e.g. pauses), the system of organization of the space and time of communication, eye contacts. A very important feature of communicative process is intention of its participants to influence

one another and to provide the ideal presentation in the partner with influencing the behaviour of the partner (personalization). An important condition of this is not only the use of a uniform language but also similar understanding of the essence of the communicative situation.

The **interactive** aspect of personal contact consists in construction of a common interrelation. Important are motives and purposes of the communication from the both parties. There are several types of personal contacts, concord, competition, and conflict. It is necessary to remember that concord, competition and conflict are not only interaction of two personalities. They take place between the parts of the groups and between the groups as a whole.

Interaction is observed in the form of feelings which can both make the people closer or separate them. The intensity of feelings influences the efficacy of the action of the members of the group and is one of the signs of social psychological climate in the group. The **perceptive** aspect of personal contacts includes formation of the image of the other person which is achieved by "reading" the mental features and peculiarities of behaviour by the physical characteristics of the person.

The process of communication requires at least two persons. Main mechanisms of learning the other person is identification (similarity), reflection (understanding how the subject is perceived by other persons), stereotyping (classification of different forms of behaviour).

Reflection is understanding of the perception by the partner with contacts and correction of the own behaviour depending on the behaviour of the other person.

Stereotyping is perception, classification and evaluation of the partner's personality basing on definite ideas.

Identification is the process of learning the quality on the basis of which the personality can be classified.

Identification and reflection are mainly performed sub-consciously that is why the mistakes in evaluation of the people are frequent, they form stereotypical ideas.

A number of effects develop in the process of interpersonal perception and cognition: priority, novelty, halo.

One of the tasks of social psychology is working out the means for correction and optimizing personal contacts, development of abilities and skills of communication. Among a number of forms of teaching the art of communication, a significant place is occupied by psychological training (mastering communication skills with the use of different programs).

Personal contacts are the form of human activity. The human being is surrounded not only by the world of objects, but also by people. He is connected with the both. These interrelations are established and develop through the work, training, that is through activity. Common activity is not possible without personal contacts and information exchange, that is without communication. The main characteristics of communication as a sort of activity is that through it the person forms his relations with the other people. Communication includes numerous mental and material forms of vital activity and is a need of a human being. Only mentally ill persons renounce real connections with people but with this they satisfy their need in contacts with pathological fantasies.

Joining into small groups, establishing contacts during common activity, people exchange information. Communication is always determined by the system of social relations, but in dynamics in the structure of communication it is impossible to separate the personal and social. Therefore, social and individual are closely connected in the language, one of the most important means of communication. The mechanism of language and its individual manifestation is speech. Language is a system of signs which have a definite importance and are used for transmission and storage of information. Speech (verbal language) belongs to the linguistic signs which are built according to certain grammar rules.

Non-linguistic signs are symbols, e.g. copies, the systems of traffic signs.

Besides verbal, there are non-verbal means of communication (the language of gestures, mimics, etc.).

In his activity the human being uses different types of speech:

- ◆ Oral monologue speech, i.e. the speech of one person (speaker, lecturer, narrator).

- ◆ Dialogic speech takes place as a conversation among several persons.

- ◆ Written speech uses written signs and has its own construction characteristics.

- ◆ Inner speech exists only in our brain, they are the speeches to him/herself.

The functions of communication are various. An elementary function of communication is establishing mutual understanding at a formal level. This may be a nod, a smile, and a gesture.

Main functions of communication are social ones as we live in the society and solve collective tasks. We have service functions (manager, subordinate, doctor, pupil), vital functions (customer, neighbour), family functions (husband, wife, relatives).

To fulfil a social function means to do what is necessary at the definite place under the given conditions according to certain laws, on the one hand, and customs, on the other.

Social functions are subdivided into those of management and control; they are connected with the organization of group activity.

The forms of interpersonal communication depend on the feelings of the person to his/her relatives, colleagues, and strangers. They work out their strategy of communication on the basis of these feelings. When forming the attitude to the work, the staff, the other persons and to the person him/herself, emotional satisfaction with I ho contact is very important.

The function of personality self-actualization consists of trying to act together with the rest achieving the purpose or increasing the influence on the rest.

From the moment of the birth, the adults encourage the child to establish contacts. The need in communication develops in stages. The child uses different means to attract the attention of the adults before starting speaking (cry, smile, gestures).

When the child is brought up properly, he/she gradually changes his mode of communication from aspiration to attract the attention of the adults to co-operation. At 2 months the child starts to smile in response to special interjections and words addressed to him, at 5-6 months he starts to babble. The fist words are pronounced at approximately 1 year. With the development of speech, communication becomes more effective.

Functional signs are an important component of the appearance (in addition to anatomical features). They are mimics, gestures, pantomimic, gait, voice which are a complex of signals and inform about mental processes and states of the person. The majority of people concentrate the attention on the face of the partner, especially the eyes. Contraction of the facial muscles changes the look which allows foreseeing the actions of the partner. The character of recognition of the emotional states can be of diagnostic significance. The clothes also influence the character of contacts. An old saying "the clothes makes the person" is important now. Without doubt the clothes, hair-do and manners influence the first impression about the person. A negative attitude can be formed if the partner' s clothes are not neat, and vice versa the person dressed neatly, with taste produces good impression. The clothes influence not only the partner, but also the person himself. He feels certain if well dressed. Fashion is also important. It dictates how to dress to look modern and smart. The fashion changes quickly that is why the person has to have his own style of clothes. The difference in clothes demonstrates generation gaps. The style of the

clothes can underline the individual character of the person, to hide shortcomings and emphasize the advantages.

To establish normal interrelations between people, especially at work or at home, the culture of contact is important. It consists in the presence of tolerance, benevolence, respect, tact, and politeness.

The moral qualities of the person, the level of his culture are evaluated according to his actions.

In different situations the culture of interpersonal contacts is based on definite rules which have been worked out for thousands years. These rules determine the forms of contacts regulated by the society and are termed etiquette. It contains both technical aspects of contacts, that is the rules about the outer side of the behaviour and the principles, violation of which causes punishment and blame. Numerous rules of the etiquette have become the elements of culture of contacts at hospitals.

The outer side of service contacts regulates service etiquette. Thus, a component of medical ethics is observing the rules of decency, good form and behaviour.

The person who knows the culture of communication exhibits it everywhere: in the family, at work, on holiday, in public places. The ability to convey the thoughts and feelings to other people, the ability not only to speak, but also to listen, to show understanding and good-will, sympathy and attention compose the culture of everyday communication.

A true culture of interpersonal relations is determined by ethical norms. A great role is played by self-estimation of the personality, attention concentration, and the ability to take the position of the partner.

One of the important characteristics of the personality is self-estimation, that is the ability to evaluate himself and the attitude to the others. Self-estimation allows analyzing the actions. It depends on education and cultural level. If a person has no desire to self-estimation, he cannot understand the rest and form interrelations, show such qualities as tact and delicacy.

Communication begins with perception of one another. Attention concentration is important which allows perception with the account of mental features. Communication will be effective if the first impression will cause the feeling of attraction. If it fails, the communication will be difficult. In any case communication must be established and maintained with the consideration of individual features of the personality of the communicants.

Interrelations can become richer if the people acquire the skills of communication and observe the rules and principles of cultured

communication. Showing respect to a personal dignity and individuality of the personality allows improving the interrelations. "Treat the people as you would like to be treated" is the main rule of morals which should be the credo of any doctor.

Conflict is collision of opposite aims, interests, thoughts or views or the subjects of their interaction. The following stages of conflict can be distinguished: incubation, latent, open conflict, obvious conflict behaviour.

Varieties of conflict are intrapersonal, interpersonal, inter-group, inter-organization, inter-state, and international.

Scheme of conflict development:

- Cause.
- Reaction of the parties.
- Key cause of the conflict.
- Suggestions about the conflict resolution.
- Agreement with the suggestion — the conflict does not develop.
- Disagreement with the suggestion — the conflict develops.
- Control of the conflict.
- Consequences of the conflict.

Depending on the duration, the conflicts are divided into short, long, prolonged.

There are five ways to resolve interpersonal conflicts (according to K. Thomas):

1. Competition — the desire to achieve satisfaction of the interests to the prejudice of the other person.
2. Adaptation — in contrast to competition, sacrificing the interests for the sake of the other person.
3. Compromise — mutual interests of the both parties.
4. Avoidance — absence of desire to co-operation and absence of desire to achieve own interests and aims.
5. Co-operation — search for an alternative decision completely satisfying the both parties.

Organization of the treatment process requires the ability to communicate, prevent the situations which may cause conflict as well as the ability to settle the conflict from all its participants: patients, their relatives, doctors, and paramedical personnel.

In a medical team every person has a definite number of responsibilities.

One of the conditions which can prevent conflict in a hospital is strict observation of the rules of medical ethics and subordination. Thus, when young doctors start their career and begin to acquire the skills of practical work, the relations between them and their medical authorities (chief doctor, department chief) resemble the

relations between the pupil and the teacher. When the stage of training is over, competition starts, and if it is not sound, conflict arises,

The role of general group reaction of the medical staff to the patients is great. There are patients with whom everybody sympathizes; it is easy to work with them. There are patients with whom it is more difficult to work, the surrounding experiences negative feelings to them, it may become the cause of conflict. Psychological incompatibility can arise between the nurse and the patients, patient and doctor, relatives of the patients and the doctor, which impedes effective treatment. If they fail to change their relations, it is necessary to change the doctor, the nurse.

A good psychological climate in hospitals is determined by well-disposed attitude between all the participants of the treatment process. It influences favorably the patients, provides more effective treatment. The arguments with the patients which some nurses allow showing their superiority are harmful.

One of the most important means of communication is speech and words. The addressed words to the patient influence him greatly. The doctor must think over every word when speaking to the patient. The environment in which the patients are at the medical institution, individual mental characteristics of the patients, the attitude to them are decisive in the process of treatment. The account of mental characteristics in the whole is an important condition of optimizing mutual activity of people and their relation in the treatment process.

CHAPTER X

PSYCHOSOMATIC DISORDERS IN GENERAL CLINICAL PRACTICE

Objectives: to learn how to consider psychosomatic relations in diagnosis, treatment and prevention of somatic diseases.

Contents: The ideas about close relation between the body and the soul, somatic health and mental state have always been the leading issue of medicine. Hipocrates considered that it was necessary to treat the patient, not the illness, i.e. a holistic approach to diagnosis and treatment was necessary.

When studying the relation between somatic and mental states it is reasonable to distinguish the following types:

1. Psychological factors as a cause of somatic disease (proper psychosomatic diseases).
2. Mental disorders which manifest with somatic symptoms and signs (somatization disorders).
3. Mental consequences of somatic diseases (including psychic reactions to the fact of somatic disease).
4. Incidentally simultaneous mental disorders and somatic diseases.
5. Somatic complications of mental disorders.

At present there is a system of somatopsychic and psychosomatic relations which are necessary to distinguish and consider during the treatment. The latter three types of psychosomatic reactions are featured in other chapters of the book.

Among the changes in the somatic health caused by emotional impact, we can distinguish non-pathological psychosomatic reactions, psychosomatic diseases, influence of the emotional state on the development and course of somatization disorders.

There is no common idea about the origin of psychosomatic diseases, their pathogenesis and treatment.

Psychosomatic medicine began to develop quickly at the beginning of the 20th century. Millions of cases of so-called "functional patients" were registered at that time. Their somatic complaints were not confirmed by objective studies, treatment with

traditional drugs was ineffective. At first correction of the affective states and disorders in the interpersonal relations of the patients, that is psychotherapy, mental consultations were necessary.

The representatives of psychoanalysis explain psychosomatic pathology emphasizing the prevail of forcing out emotional experience (protective mental mechanism which manifests with subconscious exclusion of the undesirable thought or emotion from the conscience) which later manifests with somatic symptoms and signs in the patients with psychosomatic signs. But they neglect the organic pathology, though in practice the physician should remember that the patients may develop organic diseases, psychotherapy is not sufficient right from the beginning of the disease, the treatment of the respective disease with the use of modern pharmaceuticals, sometimes surgery are necessary.

Scientific validation of psychosomatic relations can be found in I.P. Pavlov's theory of conditional reflexes. P.K. Anokhin, a Russian neurophysiologist, worked out a biological theory of functional systems. It is the concept about organization of the processes in the whole organism which interacts with the environment. This theory regards the functions as achievement of an adaptation state by the organism at its interactions with the environment.

According to this theory, any emotional reaction is viewed as a holistic functional system which combines the brain cortex, subcortical structures and the respective regions of the body.

From the point of view of neurophysiology, emotional processes involve both central (hypothalamus, limbic system, structures of activation and rewarding) and peripheral structures (catecholamines, adrenal hormones, vegetative nervous system). Extreme in its force and duration irritants change the functional state of the central and peripheral nervous system. With this functional disturbances locus minoris resistentiae (sites of minor resistance) may develop. There is a system of constant feedback which determines the possibility of therapeutic action on the emotional factor.

In response to psychoemotional stimuli various non-pathological psychosomatic reactions (visceral, sensor) may develop. Psychosomatic reactions may appear not only in response to psychic, emotional influences but also to direct action of the irritants (e.g., a view of a lemon). Representations may influence the somatic health of the person. Psychoemotional factors may cause the following physiological disturbances in various organs and systems of the organism:

a) in the cardiovascular system — increased heartbeat, changes in the blood pressure, vascular spasms;

- b) in the respiratory system — delay, increased or decreased respiratory rate;
- c) in the digestive system — vomiting, diarrhea, constipation, increased salivation, dryness in the mouth;
- d) in the sexual sphere — increased erection, weak erection, clitoris swelling, lubrication of the sex organs, anorgasmia;
- e) in the muscles — involuntary reactions: muscular strain, tremor;
- f) in the vegetative system — perspiration, hyperemia.

Psychosomatics (from Greek psyche — soul and soma — body) is a branch of medical psychology dealing with the study of psychical factors and development of functional and organic somatic disorders. **Psychosomatic disorders** are those the origin and course of which are chiefly determined by psychological factors. The cause of psychosomatic diseases is affective (emotional) overstrain (conflicts, rage, fear) when definite personality features are present. Psychological factors play a role in other diseases: migraines, endocrine disorders, malignant tumors. Nevertheless, it is important to distinguish true psychosomatic diseases, the development of which is determined by psychic factors and prevention should be aimed at elimination and correction of emotional overstrain (psychotherapy and psychopharmacology), and the diseases, the development of which is also influenced by mental and behavioral factors because they change nonspecific organism resistance but they are not the primary cause of their occurrence. For example, it is known that influence of psychoemotional stress can decrease the immune reactivity which increases the probability of diseases (including infectious).

Psychogenic component plays an active role in various organic disorders, e.g. hypertesion, gastric and duodenal ulcer, myocardial infarction, migraine, bronchial asthma, ulcerative colitis, neurodermitis. These diseases are frequently termed "major" psychosomatic diseases, emphasizing the severity of the disease and a leading role of the psychogenic factor in their development.

True psychosomatic disorders are characterized by the following:

1. Psychic stress plays a key role in the origin.
2. After its manifestation the disease becomes chronic or relapsing.
3. The first manifestations can be noted at any age, but chiefly in teen-agers.

Classical clinical pictures of seven diseases, namely essential hypertension, ulcer, bronchial asthma, neurodermitis,

thyrotoxicosis, ulcerative colitis, rheumatoid arthritis, are psychosomatic disorders.

Psychosomatic disorders are the consequence of stress caused by prolonged mental traumas, inner conflicts between similar in the intensity but different in direction motives. Some types of motivation conflicts are believed to be specific for definite diseases. Thus, hypertension is associated with the conflict between strict social control of the behaviour and an unrealized need of power. The unrealized need causes aggression, which cannot be manifested because of social restrictions. In contrast to neuroses based on intrapsychic conflicts, psychosomatic disorders are characterized by dual forcing out of an unacceptable motive and neurotic anxiety and neurotic behaviour.

As it is important to understand the essence of protective psychological mechanisms, therefore it is necessary to characterize them. The protective mechanisms are divided into primitive, or immature (splitting, projection, idealization, identification), and more mature (sublimation, rationalization). But neither the number of variants of protection (several dozens have been described) nor their taxonomy are generally accepted.

One group combines the types of protection which decrease the level of anxiety but do not change the character of inducements. They are inhibition or forcing out from the conscience of unacceptable inducements or feelings; denial of the source or feeling of anxiety; projection of transfer of the desires and feelings to the other; identification — mimicking the other person with ascribing his qualities; inhibition — blocking in the behaviour and conscience all manifestations associated with the anxiety. The other group unites the forms of protection in which the mechanisms reducing the anxiety and changing the direction of the motives work: autoaggression — direction of the hostility to himself; reversion — polar changes in the motives and feelings to opposite; regression — decrease, or turning to earlier childish forms of reaction; sublimation — transformation of the unacceptable forms of satisfaction of the needs to other forms, e.g. creative work in art or science.

The main nine forms of mental protection are the following.

1. Forcing out. This is inhibition or exclusion of unpleasant or unacceptable events or phenomena from the conscience, that is removal of the moments, information which cause anxiety. For example, in neurosis main causative event is frequently forced out.

The following psychological experiments are interesting. The subjects were given the photos of specific conflict situations close to their experience. The subjects were expected to describe them, but

they seemed to forget the photos and put them aside. When the photos were given in the state of hypnosis, the protection was taken away and the photos caused the effect adequate to their content. Similar mechanism of protection is in the basis of a well known phenomena when the person notices somebody's errors and faults and forces out his own. In other experiments the subjects were given tests on achieving success at doing some task. They recollected only those tasks which they had done correctly and "forgot" those which they had failed.

2. **Substitution** is switching from an unpleasant, causing anxiety experience (subject) to another. This variety of psychological defense can be illustrated by the following examples. After a conflict with the chief or a quarrel with a date the person directs his anger to the members of the family (rationalization can frequently take place). The person during an exiting talk crumples a sheet of paper. A girl when hearing a phrase "your boyfriend is always letting you down" throws away the cat sitting on her knees.

3. **Rationalization.** This is an attempt to substantiate the desires and acts if recognition of their cause could threaten with loss of self-respect. The examples are numerous. If a greedy person is asked to lend some money, he can always find a reason why he cannot do it (to teach a lesson, etc). If a person is unpleasant to you, you can always find a lot of shortcomings, though your dislike may not be associated with them. The patient can explain his interest to medical literature with the necessity to broaden his outlook.

4. **Projection.** Protection in the form of projection is unconscious transfer of unacceptable feelings to another person, ascribing somebody's own socially inappropriate desires, motives, acts and qualities to the surrounding persons. An example of it can be the behaviour of a young well-to-do man who placed his mother to the house for aged persons and is indignant with the bad attitude of the personnel to her.

To a certain degree, projection simplifies the behaviour, excluding the necessity to evaluate the acts constantly. We frequently transfer our behaviour to other people, projecting out emotions to them. If a person is quiet, sure of himself, well-disposed, he thinks that the rest are also well-disposed. A strained frustrated persons, unsatisfied in his wishes is hostile and projects this hostility to the other.

5. **Somatization.** This form of protection is expressed in exit from a difficult situation with fixation on the state of health (illness before tests is the simplest example). In this case benefit of the illness is significant — increased attention and decreased demands

of the relatives. In more severe cases this form of protection becomes chronic, as a rule, exaggerated attention to the health and overestimation of the severity of the disease including creating the own concepts of the disease are present. Hypochondriacal syndrome may develop.

6. **Reactive formation.** In this case unacceptable tendencies are changed to the opposite ones. Thus, turned down love is often expressed in hatred to the former object of love, boys try to hurt the girls they love, the people who are secretly envious frequently sincerely believe that they are true admirers of the person they are envious of.

7. **Sublimation.** This form of psychological protection is characterized by transformation of unacceptable impulses to socially acceptable forms of instinctive requirements which cannot be realized in an acceptable way out and the means of expression (e.g., people who do not have children frequently have pets). For some people, hobbies are a way of realizing the most unbelievable motives. Egoistic and even "forbidden" purposes can be sublimated with an activity in arts, literature, religion, science. Aggressive impulses, for example, can be sublimated in sports or policy. But proper psychological protection is meant when the person does not realize that his activity is determined by hidden impulses with biological and egoistic basis.

8. **Regression.** This is turning back to primitive forms of reaction and behaviour. Especially frequently this form of psychological protection is observed in children. For example, children without parents demonstrate the behaviour characteristic of development retardation: the child who began to walk suddenly stops to walk, enuresis, which was present in infancy, recurs. We can mention a habit to suck the finger in difficult situations (this feature can be seen not only in children but also in adults). Elements of psychological protection in the form of regression can be observed in some mental diseases.

9. **Negation.** This is a protective mechanism, which does not recognize but rejects impracticable desires, intentions, facts and actions by unconscious negation of their existence, that is real phenomena are believed to be not existing. It is necessary to emphasize that negation is not a conscious attempt to renounce, like in mimicking or lie.

In the majority of real situations several forms of psychological protection are usually used together. This should be taken into account by the doctors working both with healthy and sick persons.

An unresolvable conflict of motives (as well as uncontrolled stress) causes capitulation, refusal from the search, which creates

the background for development of psychosomatic disorders in the form of masked depression. The lesion to the organs and systems is due to genetic factors or peculiarities of ontogenetic development.

Characteristics of psychosomatic disorders

Revealing psychological features which are responsible for development of psychosomatic diseases resulted in description of the features which are present in the patients with different diseases. These are reserve, anxiety, sensitivity. Below you can find descriptions of the patients with definite psychosomatic disorders.

Essential hypertension. Main properties of the personality, prone to development of essential hypertension, are intrapersonal conflict, interpersonal strain between aggressive impulses, on the one hand, and feeling of dependence, on the other hand. Development of hypertension is due to the wish to manifest hostility at a simultaneous need of passive and adaptive behaviour. This conflict can be characterized as a conflict between contradictory personal rushes (desire of frankness, honesty and sincerity in communication and politeness, avoidance of conflicts). At stress such person can restrain his irritation and inhibit the desire to answer the offender. Suppression of negative emotions in the person during stress which is accompanied by a natural increase in the blood pressure can aggravate the condition and promote stroke development.

We examined the mental state in patients with arterial hypertension and performed daily monitoring of the arterial pressure. Our study demonstrated that at the early stage of arterial hypertension after increase of the arterial pressure the patients reduce the level of anxiety. Thus, compensatory role of pressure elevation due to prolonged psychoemotional strain was confirmed.

At the beginning of hypertension disease the majority of patients can adequately evaluate their state, perceive the administrations adequately. Some suspicious patients think that increase in the blood pressure is a tragedy, catastrophe. Their mood is decreased, the attention is fixed on the sensations, the sphere of interests diminishes and is limited to the disease.

In some patients the diagnosis of the disease does not produce any reaction, they neglect the disease, refuse from treatment. This attitude to the disease is observed chiefly in alcohol abuse.

It is necessary to admit that there is no direct association between the level of the arterial pressure and probability of mental disorders development. When examining the mental state in hypertensive subjects with daily monitoring of the arterial pressure we determined the indices of the arterial pressure which can play a role in prognosis of mental disorders in this disease. These are high

variability of the arterial pressure during the day and disturbances in the circadian rhythm of the pressure fluctuations: increase or absence of night reduction in the blood pressure level.

The patients with hypertension should be explained the causes of their state. They should know that the disorders of the nervous system are functional, temporary and with the proper treatment the function will be restored.

Coronary artery disease. It has long been considered that emotional stress can result in coronary artery disease. "Coronary personality" has been described in the literature. This idea is difficult to prove because only perspective studies can distinguish psychic factors present before the heart disease and the consequences of the disease. In the studies performed in the 80th the attention was paid to several groups of possible risk factors which include chronic emotional disorders, social economic difficulties, fatigue, constant aggressors as well as behavioural pattern A. The most probable is pattern A which is characterized by hostility, excessive aspiration to competition, ambition, constant feeling of lack of time and concentration on limitations and prohibitions. When performing the studies devoted to primary and secondary prevention, main approach consisted in elimination of such risk factors as smoking, irregular diet, insufficient physical load.

Angina. Attacks of angina can frequently be induced by anger, anxiety, excitation. The sensations survived during the attack can be horrified, sometimes the patient becomes too careful in spite of the doctor's efforts to make him get back to his ordinary lifestyle. Angina can be accompanied by atypical pain in the chest, edema due to anxiety and hyperventilation. In many cases there is discrepancy between the real capability of the patients to withstand the physical load determined objectively and their complaints on the pain in the chest and limitation of the activity.

A good effect is produced by conservative treatment together with the adequate exercise. Some patients benefit from behaviour therapy administered according to an individual scheme.

Cardiophobia. One of psychovegetative syndromes which is frequently observed in medical practice is cardiophobia. Discomfort and unusual sensations in the left side of the chest, which first occur in the situation injuring the mental state, determine the increasing anxiety of the patients and fixation on the activity of the heart, which increases the belief in the presence of a serious heart disease and fear of death. At first increasing affective strain, anxiety and suspicion, fears as well as constitutional and developed peculiarities of the personality are the basis for development of

acute cardiophobic attack. Vital unbearable fear experienced by the patients with cardiovascular disorders cannot be compared with the ordinary sensations in their intensity and character. Feeling of a close death is the only reality for the patient. The obvious fact that dozens of attacks did not cause infarction or cardiac failure does not mean anything. As it has long been known that it is dreadful to be dying not to die, the life of the patients which "died" several times is tragic. Especially important in this case is rational psychotherapy and suggestion, The life of the patient depends on their correct use and administration.

Apnea. This is caused by numerous respiratory and cardiac disorders and can increase due to mental factors. In some cases apnea is of purely psychological origin: a typical example is hyper-ventilation due to anxiety.

Asthma. This is thought to be caused by unsolved emotional conflicts associated with the relations of subordination, but the proofs for this are not satisfactory. In bronchial asthma contradiction between "desire of tenderness" and "fear of tenderness" are noted. This conflict is described as a conflict "posess-give". Patients with bronchial asthma are frequently hysteric or hypochondriacal, they cannot "release their anger to the air" and provoke attacks of suffocation. Besides, asthmatics are hypersensitive, especially to odors.

It is known that emotions (anger, fear, excitement) can produce and increase the attacks in asthma. It was reported that in children who had died of severe form of asthma, chronic mental and family problems had been noted more often than in the other asthma patients.

Mental disorders are not more frequent in children with asthma than in the whole children population but when these children have mental problems they are more difficult to treat.

There were several attempts to treat asthma using psychotherapy and behavioral therapy but there are no convincing data suggesting the efficacy of these methods when compared with ordinary advice and support. Individual and family psychotherapy can benefit in treatment children with asthma in case when psychological factors are important.

Gastritis. In patients with gastritis and ulcer a specific character is formed in the childhood, these adult patients constantly need protection, support and guardianship. They respect force, independence and strive for them. As a result two opposite mutually exclusive needs (guardianship and independence) collude which causes unresolvable conflicts.

Ulcer. The patients with gastric and duodenal ulcer have specific features. They are often persons with explosive emotions, their thinking is categorical, frank. The other group of the patients is not prone to external manifestations of the emotions. They are frequently gloomy, distrustful people. Some authors associate ulcer with inappropriate self-perception, need in protection.

Strong prolonged affects, negative emotions such as constant fear, grief, fright at strained cortical activity can cause prolonged spasm of the blood vessels in the stomach walls, if the resistance of the mucous membrane to the action of hyperacid gastric juice is low, it can result in ulcer appearance. Further development of ulcer depends on both the above factors and appearance of pain impulses from interoceptors of the involved organ. Psychotherapy influences the course of the disease and the efficacy of treatment.

Colitis. Ulcerative colitis was noted to begin after experiencing "loss of the object" and "catastrophe of experience". Decreased self-estimation, excessive sensitivity to the failures and strong desire of protection and dependence are characteristic to these patients. The disease is often regarded as the equivalent of grief.

Diabetes mellitus. Feeling of chronic dissatisfaction is characteristic for the personality of the patients with diabetes mellitus. But it is believed that in contrast to the patients with the other psychosomatic disorders there is no definite diabetic type of personality.

Neurodermitis. Eczema and psoriasis are considered to be neurodermitis of psychosomatic origin. The patients are passive, they experience difficulties with self-confirmation.

Diseases of the locomotor system. The patients with rheumatoid arthritis are characterized by "stiffed and exaggerated position", they demonstrate high level of self-control. Characteristic is the tendency to self-sacrifice and exaggerated readiness to help the people. Their help has an aggressive character.

The leading role in treatment of psychosomatic disorders is played by general physician. But psychotherapy is also important for prevention of these diseases and at all stages of treatment and rehabilitation. Important is revealing personal predisposition and prolonged personality-oriented psychotherapy. General physicians should train the patients the skills of psychic self-regulation, autogenic training for mobilizing and relaxation in stress situations. The approach to treatment of neurotic and somatoform disorders, when the complaints of the patients are associated with functional somatic diseases caused by mental disorders, is different. In this case the treatment is administered by a psychiatrist with the use of psychotherapy and psychopharmacotherapy.

CHAPTER XI

PSYCHOLOGICAL PECULIARITIES OF PATIENTS WITH DIFFERENT DISEASES

Objectives: to get acquainted with psychological peculiarities of patients with different diseases and to take them into consideration in medical tactics.

Each disease, except its typical clinical manifestations, is always accompanied by larger or smaller changes in patient's mentality. Any disease, even if it is not accompanied by organic disturbances in the brain, influences the patient's mentality.

On the one hand, the clinical picture of mental changes is determined by disease and on the other hand, by peculiarities of psychological characteristics of the patient.

Psychological peculiarities of patients with internal diseases

At acute onset of the disease a sense of confusion, fear of death appear in patients. At lingering illness the mood is reduced, irritability and excitability appear.

There is fear, anxiety, confusion in acute period of disease in patients with rheumatism. In future the mood is reduced and in severe cases flaccidity and apathy are changed by the appearance of locomotive and speech activities with underestimation of severity of disease and its consequences. The patients with progressive polyarthritis are suppressed and depressive, such patients get on with each other badly. As opposed to this the patients with Bechterew's disease are amicable, as a rule, optimistic, they accept their fate with a smile even at immovable spinal column.

During the initial period of forming valvular heart diseases there are unpleasant sensations, the patients fix their attention on the heart work, fear of death from cardiac arrest appears.

In hypertension during the first stage the majority of patients estimate their health condition adequately, they fulfill all doctor's prescriptions. People with anxious hypochondriac character perceive increased arterial pressure as a catastrophe. They fix their

attention on unhealthy sensations, range of their interests is limited by the disease. In hypertension some patients ignore the possibility of severe consequences and refuse from treatment and they do not give up harmful habits.

In cerebral atherosclerosis the patients become groundlessly susceptible, hesitation of mood, lacrimation, diminution of efficiency and irritability are noticed.

During the period preceding to development of myocardial infarction a sensation of vagueness in the head, difficulties in concentration of attention, presentiment of approaching danger, anxiety, melancholy, in some cases euphoria appears. In acute period of myocardial infarction the painful syndrome is accompanied by fear of death; during the recovery the attention of patients is fixed on their sensations, they are hypochondriac.

In bronchial asthma the emotional tension promotes the origin of asphyxia attacks, moreover, the reaction at this to a considerable extent depends on peculiarities of the person. Such patients often feel fear connected with waiting for another attack. In chronic course of bronchial asthma the change of patient's character occurs. In pneumonia, when the temperature is rising, consciousness of patients can be disturbed.

In acute pneumonia in some patients reduction of activity, hypodynamia, unsociability unhealthy attitude to investigation and treatment are observed. When the temperature is rising, the consciousness of the patients can be disturbed.

In chronic lung diseases many patients feel reduction of mood, irritability, their attention is fixed on unpleasant sensations, and a thought of incurability appears.

In pathology of organs of digestion psychological peculiarities of patients are formed under the influence of such symptoms as meteorism, frequent urges to defecate, which cause a sense of shyness, discomfort. The patients with chronic gastritis complain of weakness, reveal the activity in investigation and treatment, some of them are afraid of carcinoma of stomach.

In peptic and duodenum ulcer patients often «go into disease», fixing their attention on unpleasant sensations, they feel fear of pains. The loss of weight, gastric hemorrhage, diminution of efficiency cause anxiety for life, sensation of irreparability.

Nonspecific ulcerative colitis is often accompanied by sense of melancholy dissatisfaction with the fear of death.

In chronic liver diseases such characteristics as dissatisfaction, «irritable» grumbling appear in patients' nature.

It is necessary to pay special attention to the patients with malignant neoplasms because different mental reactions can

develop according to the stage of disease. Thus, at the first stage the mood usually comes down in waiting of «verdict»; attention is riveted to own sensation, results of investigations, doctor's words; overestimation of vital values occurs, features of character often become keen. When the diagnosis is known, there are affective reactions, the patients begin to fight with the approaching danger, fatigability appears, the mood is come down, the sensation of pain becomes keen. There is no fear of death at premortal stage in many patients. A special caution and tact should be kept at contacts with incurable patients. All trivialities must be taken into account, personnel and relatives have not to bustle. Telling the diagnosis to the patient in case of incurable disease is an important question. It is necessary to have an individual approach with taking into consideration characterologic peculiarities of the patient.

The patients with groundless persistent fear of malignant neoplasm, which they think they have found, require a great psychotherapeutic work. The doctor must patiently and persuasively prove insolvency of patient's suspicions. Such patients must not be ignored on no account, because a scornful doctor's attitude can finally persuade them in their truth and it can lead to suicide.

Gerontology: in some therapeutic departments there are more than 60 per cent of people over 60. There is no doubt that the improvement of vital conditions and medical aid prolong the life. But somatic preservation of life is not always connected with its positive mental filling. Old people can not adapt to rapid changes of life and they are not able to understand much that is difficult for young people too. In spite of that they live with young people in the family, they are still relatively isolated as far as they do not always understand new conditions of work and life. But in those cases when the people live in total solitude, their condition is the most complicated. In old solitary people such paradoxical phenomenon may be occurred that their disease will become the last opportunity of establishing the contact with people: the doctor comes to the patient, the patient can be hospitalized, where in the group of patients he would feel sympathy and interest to him.

The border between the health and disease is more pronounced in old people than in a young age. German people say about everyday usual malaise — «Alltagsbeschwerden». In frequently repeated malaise in old people attitude to it plays an important role: whether this malaise will be felt more intensively, cause fear and diffidence or whether a person on the border between health and disease will be able to abstract from unpleasant sensations, to live more by impressions of events, happening in the world and the

contacts with surrounding people than by own body and fear of it. At deficiency of other stimuli, aged solitary people concentrate their attention on somatic processes, intensively feel their sensations, conditioned by organic and neurotic causes, and do the only, which, to their opinion, makes sense: they go to the doctor and ask for help.

Psychological peculiarities of patients in surgical clinics

In this speciality the technique has achieved more perfection both in sense of interventions and in equipment. Surgeons' concentration of attention on surgical technique and its facilities sometimes leads to underestimation of patient's psychological state. In a number of cases there is cold, featureless atmosphere, where the patient does not feel well. When the patients change frequently and the personnel is in a hurry, which is caused by emergency, it is not always possible to develop psychological relations between the medical personnel and the patient. Moreover, the patients often consider the surgeon an ideal doctor who brings help by means of rapid energetic intervention, which is taken by the patients passively. In surgery, in surgeon's conduct, in popularization of prominent achievements of modern surgery those are definite magic features, that is why today we can speak about one of the magic forms. In surgery the patient more than in other speciality is given to doctor's power, especially when he is under narcosis during the operation. Mental shocks, felt by the patient in such circumstances, often lead to that, the patient before the operation informs his doctor about vital problems frequently kept from the other.

Crippling interventions such as amputation of limbs, mastectomy in breast cancer, providing intestinal patency in intestinal carcinoma, partial gastrectomy in relapses of ulcer cause a considerable psychical trauma to the patient. Subjective feelings and patient's attitude to his own physical state often play the most important part in the future life than the size of organic lesion.

Sometimes patients refuse from operation. The causes of refusal are:

- ◆ The patient has frightened by other patients, who had undergone such intervention, and telling about unpleasant impressions, which they had felt «heroically», they want to be in the centre of attention and to call the astonishment.

- ◆ Similar operation has led to severe consequences, deformation or even death of the patient's relative or friend.

- ◆ The patient underestimates or denies his disease on light-mindedness or to avoid misgivings or cares.

- ◆ For everything the patient reacts by fear or misgiving. The question is often about psychopathic and neurotic persons.

◆ Unpleasant own impressions of the previous operations, for example, fear of narcosis, when many patients feel expressed fear «of a sense of falling into a bottomless precipice».

One of the most important stages is preparation to the operation. The surgeon should reveal interest and affability, to estimate the role of the disease and operation in the patient's life and his future; it is important to listen to his misgivings and wishes. Some patients are afraid of unconsciousness and helplessness, caused by narcosis, they feel fear of not waking up, suffocating, disclosing their secrets, «telling nonsenses», becoming funny. Such mood is sometimes strengthened by other people who tell about their impressions, which they had felt. Some patients unwarrantably say that «narcosis had not produced any effect» and they were operated being «in clear consciousness". Sometimes because of ignorance they take local or lumbal anesthesia for general one.

At the first stage of narcosis the patients are not notable for increased receptivity to personnel expressions which retained in their memory, but sometimes, these words are perceived illusory or remembered distortly after recovering from anesthesia, and mental iatrogenia can develop without the fault of personnel. That is why it is necessary to bring to minimum speech contact between the medical personnel during the operation. At recovery from anesthesia patients demonstrate increased sensitivity to sensory irritations, such as noise, strong light, smell, which can cause nausea and vomiting. It is necessary to take this into consideration at preparation of the room where the patient will be kept after recovery from anesthesia.

The operation is a source of tension, as it is connected with waiting of result, sometimes the patients are injured by the delay in the terms of the operation. Although after the operation the majority of patients do not know about its consequences, they have a sense of alleviation, because of «becoming a thing of the past», «their returning to life», or «avoiding of death». It can favourably influence the action of a surgical placebo, especially in patients with inoperable tumours. However, in the majority of cases a sense of alleviation is brief or it is changed by strengthening of symptoms, resulting from both the disease and the postoperative weakening of the organism. If the disease becomes worst, the patients unwarrantably attribute it to the operation: «The operation is guilty», «I should not have agreed to the operation». The postoperative course becomes difficult due to such circumstances as: a bad contact of patient with the personnel, the patient's incapacity to express his condition by means of words unfavourable

vital and family situations which can complicate the operation's results, bad adaptability; his emotional immaturity, a weak or unbalanced type of temper, neurotic features of the character.

Elderly people adapt worse to the changes, they are more afraid of death. Their wounds heal slowly, the postoperative complications develop frequently and last for a long time. (Twenty five per cent of elderly people have postoperative complications). They also have brain disorders with disturbance of blood supply and metabolism. They long for visitors who must be admitted to the patients, as they get accustomed to their belonging, the nurse should arrange with patient's relatives which things are necessary for the patient, for instance, spectacles or hearing apparatus.

In spite of strict demands of a hygienic regimen in surgical department these requirements can be satisfied.

Plastic surgery: According to this speciality two fields of psychological problems can be described, which are various to some degree, but equally labour-intensive and complicated. Objectively, there are those conditions when the surgeon improves the results of severe injuries or burns, and during the team-work with the personnel or a psychologist he should prepare the patient to a sudden psychic trauma, for example, the first look in a mirror after the operation. The face looks aesthetically better when compared with what it was after the trauma or burn, the patient compares his appearance with that he had before the trauma or burn, and he can be disappointed or shocked.

Another field of problems deals with cosmetic operations, with the dissatisfaction with appearance and it has exclusively subjective character. For instance, the patient does not wish to have a «potato» nose or a «very turned-up nose», and he persistently demands improvement of this defect. Satisfaction of this requirement, if it has very subjective reasons, and moreover, if it is accompanied by striking, exalt, a hysterical conduct is somewhat dangerous. Such patient may be dissatisfied with improving the defect, and he or she will insist on one more operation.

In such patients their «defect» is a subjective internal justification of their vital failure, for example, in private life. Then they accuse the surgeons of their problems and try to punish them. In this case the question is about an expressed type of extrapunitive reaction of frustration.

Traumatology. Traumatologists should take into account that the attitude to trauma and rendering help change according to that fact whether the trauma prevents some interests and demands of the injured patient or relieves them. As a rule, sportsmen do not visit a doctor with small traumas. Injured people, who want to hide

their traumas, for example, children, who had come to blow and had been afraid of punishment, or adults, who are in conflict with police, avoid the registration. At injury the motivation influences trophic processes and healing of wounds. «The wounds are healed better in soldiers of attacking army than in soldiers of retreating army».

The most impotent psychological task of medical personnel is attraction of the injured patient to an active rehabilitation for prognosis of favourable results.

Orthopedics. Marked body deformations influence the development of the person. The inferiority complex, malice, sarcasm, hostile prejudice with respect to healthy people are observed. Such development is noticed in persons with scoliosis; they are reserved, gloomy, avoid the society, they do not go to disco or to bathe, especially girls. Sometimes some very tall young people insist on shortening their extremities in order to find a partner more easily. The attitude to orthopedic defects is often disharmonic: some people try to hide their defect and avoid such kinds of activity which may be useful for them, for example, swimming. On the contrary, others incline to hypercompensation, try to compare with healthy people or even to leave them behind in sport, tourism, or dances. Some people try to derive benefit, for example, to get retired. Possible malingering is not diagnosed easily as in such cases the organic functional psychogenic symptomatology is interlaced indistinctly. Sometimes, according to their imagination about «the right on health», the patients insist on complicated operations which require the fulfillment of unreal demands.

Psychological peculiarities of patients in gynecological clinics

In girls the appearance of first menstruation sometimes causes fear and neurotic reactions, that is why they should be psychologically prepared. But, even in that case when the girl is informed she can feel painful menstruation. The girl who little by little becomes a woman feels her feet and looks for the corresponding examples. Most often her mother becomes such an example. If the mother's marriage is unhappy, the daughter takes the part of the woman dually or even with misgiving and aversion. But even in healthy women, during the menstruation there are pains in sacral region and abdomen, pressure in genital organs, mental irritability and inclination to depression. At negative mental feeling of menses these symptoms may be strengthened, and dysmenorrhea appears. In dysmenorrhea it is difficult to establish the role of hormonal and mental factors, and all the peculiarities should be born in mind. At premenstrual period in many women

the similar manifestations are present: irritability, fatigue, and headaches. Premenstrual complaints may be relieved by means of placebo in 60 per cent that shows the considerable influence of mental factors in their origin. Expectation of menstruation is often tense, connected with fear of pregnancy. Amenorrhea (e.g. the full absence of menstruation) may be caused by suggestion and hypnosis. It also develops in depression and fear of unwanted pregnancy. In that case there is a positive reverse connection, «vicious circle»: misgivings lead to amenorrhea which strengthens the fear. The influence of these disturbances was described: at earthquakes, air raids, in concentration camps, at death of the closest people or relatives and even at removals. Sometimes it is said about amenorrhea as «tendentious» purposeful symptom; living in a hostel, the girls are ashamed, try to avoid the attention, that is why they suppress the menstruation psychogenically. On the contrary, menstruation as a tendentious sign can appear prematurely, for instance, before the operation which causes fear in women, so that the menstruation «saves» the patient from unpleasantness for some time.

At gynecological examination it is necessary to remember about the feeling of shyness. The women are often admitted to a gynecological clinic for intervention, that is why it is necessary to keep similar recommendations as in surgical departments. Obstetric divisions deserve a special attention. The physician should know about the feelings of an expectant mother, especially of primipara: anxiety for pregnancy termination, fear of labor pains, trouble for the infant's health. The unbalance, emotional instability, shame of parturient women demands benevolentness, affability, cordiality from the personnel. If possible delivery room should be situated not closely to admitting unit and prenatal wards. It is very important to watch for puerperant women as various mental reactions may occur during postpartum period.

Climacteric is one of the most important stages in a woman's life, when the hormonal changes sometimes cause flushes to the head, tachycardia and other symptoms. But all these disturbances, appearing in climacteric, are not only hormonal ones. For a number of women menopause is a stimulus for summing up the life, for thoughts of whether they are glad of their life and what they can expect from the future. Many women do not know that sexual life may be continued after menopause and it may be more harmonic, especially in women who were afraid of pregnancy. Doctor's assertions that disorders in climacteric have exceptionally hormonal origin can cause iatrogenia.

Psychological peculiarities of patients with infectious diseases

The fact of discovering the infectious disease and necessity of hospitalization cause senses of shame, fear in patients, they are afraid that they can become a source of contamination of their nearest,

At prodromal stage of the infectious disease the patient's estimation of his condition depends on psychological traumatic situation. Signs of general toxic character predominate, sometimes there is disorder of consciousness. At recovery stage various asthenic manifestations prevail. In patients with dangerous infections, severity of the disease, high contagiousness, a doubtful prognosis often cause acute psychological reactions, reminding the conduct of people in situations of mass natural calamity.

Psychological peculiarities of patients infected by HIV

The reaction on the diagnosis of AIDS (the most terrible disease, «the plague of the 20th century») is manifestation of psychological stress with reduction of the mood, ideas of self-accusation, suicide thoughts or trends. Obsessive fear of death, ideas about the process of death appear in the patients, some are afraid of a thought about a possibility of infection of the relatives. In future the symptom of intellect reduction appears. In patients from the risk group, including the infected persons and the most exposed to contamination people, alarm, irritability, anxiety are observed, capacity to work is reduced. They are fixed on their health, read a lot of literature about this disease, look for the symptoms of this disease. Many people break their sexual contacts. Some of them reveal the frank antisocial tendencies, trying to pass the virus to other people.

Psychological peculiarities of patients with tuberculosis

Diagnosis of tuberculosis, necessity of prolonged hospital treatment are taken by some patients as a tragedy, a catastrophe. Anxiety, fear that the nearest and colleagues will avoid contacts with them develop. However, the majority of people receives the fact of disease and necessity of treatment correctly.

Psychological condition of the patients with tuberculosis is characterized by special sensitivity, sentimentality, emotional lability, exhaustion. The patients are asthenic, and on this background there are situationally conditioned affective manifestations and hysteric reactions. The doctor must take into account these peculiarities and consider conflict situations with surrounding people and personnel to be a manifestation of the disease. In these cases it is necessary to prescribe sedatives and not to reprimand the patients.

In asthenia there is an increased mood with garrulity, motor activity, which rapidly change into irascibility, tension or indifference.

A number of psychological problems are also caused by the treatment. The cooperation of the patients and their responsibility have great significance. The condition of undisciplined and irresponsible patients is often worsened because they do not keep prescribed regimen and method of treatment. This circumstance increases the demands to the organization of the regimen and to individual psychotherapeutic approach to the patients.

Psychological peculiarities of patients with skin and venereal diseases

The skin is the organ which the person shows to the surrounding people, as well as his figure. It has a significant psychological meaning. Mental reactions in skin disorders include a wider range of disorders, conditioned by negative aesthetic ideas, squeamishness on the hand of surrounding people and by shame, a sense of own inferiority complex and uncertainty of future in the patient. The appearance of the patient is distorted considerably by psoriasis, eczema, acne, scars after chronic granuloma and burns, colloids, hypertrichosis. Especially in the pubertal period the patients fall into depression, often not corresponding to the character of the disease on the objective point of view, for example, in imperceptible acne or moderate loss of hair. In some skin disorders a special problem is pruritus, which may lead to irritability, insomnia and depression. The patient is often thankful for elimination of the signs of the disease.

Venereology. Some patients dissimulate their sexual or venereal disorders in order to avoid investigation of the circumstances, which caused the disease. They look for prohibited methods of treatment: uncertainty in the effectiveness of treatment may suggest misgivings and doubts, whether they have recovered or complications have not appeared. The result of dissimulation may be infection of other people. According to the patient's conduct, opinions, partly to the appearance and hygiene, a skilled venereologist decides whether he can rely upon the patient's information and his cooperation in the process of treatment. In contrast to socially doubtful persons, who are vulgar, toady, sly and insincere, some accidentally infected patients are shy or they suffer from shame and feel pangs of conscience, sense of own inferiority complex, and they need an approval and definite reduction of the disease significance. Gonorrhoea and trichomoniasis are the examples of that somatically «banal» and easily cured disease which may be very severe from psychological point of view.

At recovery some patients underestimate the role of the doctor's observation for the consolidation of treatment successes. Other patients reveal suspiciousness, overestimate the significance of separate symptoms.

Psychological peculiarities of relations mother — child — doctor

The work with children, care for them, sick or healthy, correct estimation of their conduct, reactions require a special knowledge. In pediatrics, the demand of appropriate and differential approach to children of various age groups is a psychologically difficult question. A good pediatrician possesses the entire range of verbal and mimic expressions which help him approach each sick child individually. A pediatrician, who has his own children, is in more favourable condition, as he can use his own experience. The age of the child is not a reliable indicator, showing to the personnel the level of communication with him. There is a certain percent of feebleminded children, a great number of narrow-minded and retarded children, who can make up this lag in future, and children with accelerated development, which is retarded afterwards and none the less they caught up with other children.

The child's disease is a very difficult situation for all family. The child's reaction on the disease depends on the parents' conduct and ways of upbringing. The child of a pre-school age is afraid of the fact of hospitalization, isolation of parents. If in the family the children were spoilt «idols», they would be helpless in hospital. The parents' conduct at severe conditions often influences unfavourably their children.

In case when the urgent hospitalization is needed the pathologic reaction may arise when the child weeps, cries or does not leave his mother. Such reactions may last from some hours to some days.

Great psychological problems arise in the parents, when they learn about a severe, incurable, chronic disease of the child. At first, reactions of distrust are observed, and the parents consult various specialists, they hope for a misdiagnosis. The results of the investigations are often discussed in the presence of the child that influences him negatively.

In children with a lingering illness, when the parents create them special conditions, inclination to hysteric reactions, features of mental infantilism appear, which makes adaptation to outer environment difficult.

In children's medical establishments the doctors and personnel must be able to devote themselves to the children, to play with them, as in the play a child is calmed down. During the process of plays the doctor studies the personal peculiarities of the child, his

wishes and needs. The play diverts children from unpleasant feelings.

It is recommended to gather children with the same level of development in the same ward. It is necessary to remember that children, even little ones, always listen to doctors' and students' talks in the ward and then they speak about their misgivings to the parents.

Sometimes in teenagers the cases of simulation malingering in order to attract the attention or as the protests against any troubles are observed.

Parents suffer most of all when their child is ill with sarcoma or leukemia. The personnel receives the death of a child more heavily than the death of an adult.

Psychological peculiarities of the work of dentists

In dentistry the first place is occupied by a pain, which leads the patient to the doctor. There is the vicious circle: fear of pain makes the patient neglect small carious processes and processes causing pain, as a rule, demand more extensive and painful interventions. When rendering help a dentist usually takes into consideration the fact that the sensitivity to pain is various in different age categories; it is also due to refraction of the pulp with the age. It is necessary to take into account individual differences in sensitivity to pain caused by either innate or acquired reasons. Super-sensitive patients whose pains are not managed by ordinary methods of treatment should be cured gradually, dentists have to receive them repeatedly and use the all accessible means for reduction of pain. If the doctor has to hurt the patients, he must act quickly, without hesitation because uncertainty slows down manipulation, reduces the quality and none the less, harms the patient. It is appropriately to show the patient that the doctor understands and fully estimates his pain, but it is not necessary to express an excessive sympathy when the dentist rendering aid hurts the patients. The patient's anxiety before the treatment and his fear of pain complicate the work of the dentist considerably. That is why in some cases it is necessary to carry out the joint work of a dentist, psychotherapist and psychiatrist. Both psychotherapy and some psychopharmacologic facilities can reduce the fear and pain,

Tooth extraction and preparation to it cause the most considerable tension in many persons. Skilled dentists sometimes can do extraction so dexterously that the patients prepared for a great torture can be very astonished. It is not necessary to show the patient the bloody extracted tooth pressed in pincers as negative associations are created for future. Before extraction or during it

some patients reveal an abnormal reaction of a fear or fear attack of a hysteric type. It is necessary to distinguish confidently depressed hysteric attack from a collapse and an epileptic attack. At rendering a help to the patient it is possible to recommend the dentist to signal the nurse his demands by means of gestures to avoid the use of technical terms, for example, dower jaw (mandibula) pincers!»

The patients insist on making dentures on different reasons: improvement of jaw functions is the most frequent, sometimes there is an aesthetic reason, especially in women. There are great psychic problems with removable dentures which uninterruptedly remind the patient about his age, association of his condition with the age and about other circumstances. Total denture changes the face, that is why the patient is not always satisfied with the denture even if it functions well. The term «mental incorporation of a denture» is used for definition of patient's adaptation to it. Persons feeling shy of their dentures sometimes isolate themselves from the society, avoid acquaintances and friends. Symbolically teeth have a meaning of aggressiveness, success in society and erotics; thus, depression and sense of inferiority complex develop in people with teeth defects.

Children with teeth anomalies suffer from speech disturbances and can differ from others by appearance and face, they look «stupid». They suffer from mockeries of surrounding people and react to them differently; inferiority complex and aggressiveness appear, sometimes they play the part of «a clown in the class». In order to compensate these difficulties in children's group the parents sometimes praise to excess and overestimate the abilities and talents of their child so that it may lead to disappointment.

Psychological factor is also connected with caries and its complications. Caries is often observed in the countries where there is the highest consumption of sugar and sweets. Considerable role belongs to the way of children's nutrition which mainly depends on whether the parents allow their children to eat sweets especially before sleep. Parents, grandparents can not be of principle in this question, even if they know a lot about correct nutrition of the child. There is a reason of «giving a child all that they could not afford to themselves», a striving to like to their children, sometimes they try to suppress the pangs of conscience in that they do not pay enough attention to the children. In some children and adults sweets become the means of calming at personal unpleasantnesses, failure and shortage of aim and sense of life.

In gingivitis depressions and apathy are always noticed when the patient is told carelessly about the prognosis of the disease. Bad

breathing makes the contacts difficult. In inflammation of the oral mucosa and tongue, cancerophobia sometimes develops.

The place where dental aid is rendered, must correspond to the demands of deontology and psychoprophylaxis. The reception room must be very comfortable with many magazines, it should not remind a hospital. The sanitary posters are not an object of attention of the patients who feel fear and tension in the reception room. In dentists's surgery it is appropriately to limit as much as possible specific dental elements, such as a white colour, «exhibition of instruments)) with which the patient connects a number of his misgivings. A row of chairs standing next to each other acts negatively on the patient because it reminds them a conveyor.

Psychological peculiarities of blind people

In childhood the parents of blind children try to guard them excessively, to create sparing conditions, to protect them from difficulties to forge the initiative. It leads to development of shyness, indecision, a striving to cry, inclination to fantasy, the departure from children's group.

The beginning of school studies is often accompanied by neurotic reactions, suspiciousness, offence, helplessness.

In blind people the overvalued ideals of decline form, they feel badly among sighted people, a forced stay in such group causes autistic tendencies.

Young people up to 20 — 30 years of age manage with suddenly arisen blindness, for example, after injury, better than middle-aged and elderly people. The last constant hope is for any change or any scientific discovery. Difficult mental problems appear in a married couple where blindness of both spouses is caused genetically. They doubt if they can have children, expecting that their children will be blind and all the consequences of this, for example, difficult upbringing of blind children, help of healthy children to blind parents and as a result there is parents' dependence on children.

Psychological peculiarities of hard on hearing and deaf people

Personal reactions on declining or loss of hearing are various. Hearing apparatus plays an important part in the life of the patients. Increasing deafness causes painful feelings as regards of inferiority complex, there are irritability, offence, difficulty in contacts, suspiciousness, mistrust.

Because of difficulty in contacts with surrounding people the ideas of reference may develop, patients think that the surrounding people condemn or laugh at them. The treatment of such people at in-patient departments has a lot of difficulties. The patient tries to

listen attentively to the doctor's words and «hears something terrible about his disease». The people with hearing loss usually hide their defect from other patients in a ward and feel too shy to say that they do not hear everything.

The doctor must give a special talk to patients with hearing loss to dispel their doubts and misgivings.

Psychological peculiarities of patients with injuries of face

The face of a person defines the impression which it makes on other people and helps to give an idea about himself. Mimicry defines the emotional state of a person. Aesthetic criterion with regard to the body is inherent in every man, but it plays an important role with regard to his face. People with disfigured faces notice the curious and sometimes mocking looks of surrounding people, that is why they become supersensitive, suspicious and touchy. They are often afraid to go to the street, to meet people, who knew them before. Some people leave their places and begin in a new life in those places where they have never been before.

A correct psychotherapeutic approach may relieve the sufferings of such a patient and it helps to create a positive attitude to life.

Psychological peculiarities of patients with organic cerebral affections

A neurologist meets fear of brain tumor and severe encephalopathy in minor diseases, for example, in headaches of other etiology. Psychological examination may help in determining the level of disorders of higher nervous activity and mentality at organic cerebral affections.

Psychogenic factors sometimes provoke extrapyramidal symptoms of organic affections, for instance, in Parkinson's disease, in some patients they also provoke a big spastic fit and attack of migraine. Diseases connected with limitation of mobility cause depression and suppression. More attention should be paid to development of consequences of cerebral hemorrhages. The question is about individual school for adults, who need renovation of disturbed knowledge and abilities, such as speech, reading, writing and calculation.

Peculiarities of contact with mentally ill patients

The attitude to mentally ill people must be the same as to other patients: correct, polite, benevolent, merciful, affable.

Speaking to such patients it is necessary to listen attentively to the patient's complaints even if they seem absurd as to manifestations of the disease. It is impossible to show rudeness, contempt, mockery to the patients. The doctor should get out of society prejudices with regards to mentally ill. It is

necessary to remember that in some patients there is absence of understanding of disease and to carry out the urgent hospitalization to the psychiatric department and to treat them without agreement or, sometimes, in spite of their demands. It requires tact and patience. It is recommended to talk with the relatives calmly, softly, to convince them in necessity of treatment in out-patient or in-patient departments. In psychiatric clinic it is necessary to keep vigilance, to see that the patients do not make any actions, threatening to health and life of the patient and surrounding people. In contacts with mentally ill it is necessary to convince, but not to deceive them.

Psychological peculiarities of care for dying patients

The human being is the only living being who knows about inevitability of death. However, the man can not realize it himself.

According to psychological investigations the man usually dies like he lived. All the strength, senses, ideas about his life, are also inherent to his death. The man is not always afraid of death. Worn out by unbearable pains, exhausted by chronic disease, the patient, to whom analgesics do not help, thinks about the death as deliverance.

The majority of doctors and nurses, meeting with death day after day, try to defend themselves from its negative influence.

However, the doctor has not only to help but also to try to understand his patient's feelings. Helpless, dependence of a dying person on surrounding people, his isolation must be taken into account at organization of care. One should regard the wishes of a dying patient with respect. Measures are dictated by his needs and possibilities of their fulfillment. The care of relatives and attention of friends are required for such a patient.

The question is often discussed whether it is advisable to tell the patient about «approaching» death. It is not always possible to persuade the patient that he can stand any «verdict». It is necessary to keep up the hope on recovery. There are a lot of cases in medicine when the condition of hopeless patients was improved.

In hospitals the doctors should pay great attention to proper placing dying people. The neighbour's death may cause a shock in other patients, that is why it is very important to isolate a dying person. The care for such patient in a small ward is more intensive and does not disturb others.

Relatives of a dying person also require care, sympathy and attention. Doctors sometimes listen to unjust accusations to their address. And they must regard this patiently, try to help those who feels misfortune keenly.

Young doctors sometimes say, that to help a patient to die means to fulfill a humane action, to save him from sufferings. However, the doctor, possessing professional psychological qualities, such as humanism, sympathy, honesty, selflessness, never agrees with justification of euthanasia. A doctor must try to prolong the life of his patient to the last minute and to relieve his sufferings by pharmacological and psychotherapeutic means.

Neither patient's requests nor wishes of his relatives, even registered officially (statements, video records, etc.) can not excuse euthanasia made by the doctor.

CHAPTER XII

PSYCHOLOGY OF SUICIDE

Objectives: to study the causes of suicide, psychological aspects of suicidal behaviour and the principles of its prevention.

Suicide is an intentional selfmurder with fatal outcome. Suicide, an exceptionally human act, occurs in all cultures. People committing **suicide** usually suffer greatly, they are in the state of stress and **cannot** cope with their problems.

Suicide and suicide attempt are the objects of a special interdisciplinary field of knowledge, suicidology, which has been intensively developing in many countries of the world. Already at the beginning of the 20-th century a wellknown Russian lawyer I.F. Koni wrote that suicide became turning into "an ailment approaching closer to human society". The correctness of these worlds was confirmed after the World War II when the increase in suicide incidence was noted in the majority of developed industrial countries.

At the end of the 20-th century suicides took the fourth place among the most frequent causes of death. During a year about 500000 suicides occur in the world and more than one thousand persons commit suicide every day.

A sharp increase in the number of suicides among young people aged 18 — 19 arouses the greatest anxiety. Now the number of suicide in this age group is 50 % of all fixed suicides.

Suicide may be briefly defined as self-murder. True suicide means a cruel duel between life and death in which everything that keeps a person on the Earth is defeated. If a person decides to commit suicide it means that a fundamental ethical category, significance of life, has undergone serious changes. A person decides to commit suicide when his life loses its sense under the influence of one or another circumstance. The loss of significance of life is a necessary but not sufficient condition of suicidal behaviour. The death must gain a moral sense and only then the idea about it can be turned into an object of activity. As Nikolay Berdiaev wrote

in his psychological study "On suicide", "Self-murder is a psychological phenomenon, and it is necessary to realize the emotional state of the person who decided to commit suicide in order to understand it. Self-murder is committed at an exceptionally peculiar moment of life".

Psychology of suicide is, first of all, psychology of despair. The problem of suicide means that a person finds oneself in 'full stops' (or 'dark points') and cannot break away from them. A person wants to commit suicide and he wants to do it just because he cannot get out of himself and he is absorbed into himself. He can get out of himself only through self-murder. And though vital events and conflicts causing suicide are various, they all have a common ethical aspect: at the level of moral values they all appeal to moral values and all exactly in this quality come forward all notions about happiness, goodness, justice, duty, dignity, etc. In other words, suicidal acts are powerful blows to the person's moral values.

A suicidal decision is an act of a moral choice. Giving preference to suicide, the person brings into correlation its motif and result and accepts the responsibility for self-destruction or shifts off this responsibility on other persons. In any case, when a person chooses this act, he sees in it not only a simple act causing death, but also a definite action having either positive or negative moral sense which produces a definite attitude, estimations and opinions. The category of "sense of life" should be considered as the initial point in ethico-psychological suicide analysis. It is one of the most common, integral characteristics of the person's world view and sense of being alive.

The increase of suicides during recent years is due to aggravation of social and psychological deadadaptation. Predisposal phase of social and psychological deadadaptation is determined by personal conflicts as well as global social, economical and ecological problems. Of decisive significance for transition of the predisposal phase into suicidal one is the conflict, which, in conditions of deadadaptation, does not find its natural solution and determines development of psychological deprivation resulting in suicide. The growth of suicide incidence is explained by a large increase of divorces, drinking alcohol and narcotics, unemployment, increase in the number of various religious societies of destructive type.

Suicidal behaviour depends on many factors, it occurs in extreme situations and it is undertaken on various motives and with different purposes. Suicidologists have already refused from searches of a single and determining cause of such behaviour, they also have refused to determine a general or "typical" profile of a self-

murderer. Suicidal populations are heterogenous, as the forms of suicidal behaviour are various.

From social, ecological and demographic points of view it is important to explain the differences in the character of spatial and temporal suicide distribution, to find out what is the cause of suicide increase and decrease in a definite season and in definite social and cultural groups and communities. Special attention should be paid to the personality of the self-murderer with the account of his sex and age, certain social and ethnic group. It is quite evident that the cause for committing suicide in a girl aged 12 who has quarreled with her mother is quite different from that of an old sick abandoned woman. In one case it is imitation of the recently watched sentimental film and in the other it is the result of an agonizing life drama.

The study of suicidal behaviour should not be confined to suicide analysis and suicidal attempts only. It is necessary to consider all dangerous suicidal reactions, the whole variety of manifestations of this phenomenon: suicidal thoughts, threats, imitations, demonstrations of suicidal intentions including its extreme forms, attempts on self-murder and committed suicides. It is necessary to consider different forms and types of suicidal behaviour separately in order to have an opportunity to single out diagnostic signs of suicidal behaviour in its various forms and types taking into consideration predisposing objective and subjective suicidogenic factors.

Self-murder is rarely committed as a result of rational attitude to life circumstances and arguments of taking or rejecting life. A psychological crisis is in its base, going through the whole range of negative emotions, despair, grief, fear, feeling of helplessness, fault, anger, desire of vengeance and breaking off intolerable emotional and physical sufferings. That is why it is necessary to include psychosomatic problems into consideration, to study physiological picture of stresses and to reestimate the role of the endocrine system in the person's behaviour.

Polysemantic meaning of a person's suicidal behaviour is obvious and it can be presented in general with the following types: protest and vengeance, calling for help, avoiding (punishment, suffering), self-punishment, refusal.

"Protesting" forms of suicidal behaviour take place in the conflict situation when its objective link is hostile or aggressive with respect to the subject and the sense of suicide is in negative influence on the objective link. Vengeance is a definite form of protest, definite damaging to hostile surroundings. The given forms of behaviour suggest the presence of high self-appraisal and self-

value, active or aggressive position of the personality with functioning the mechanism of transformation of heteroaggression into autoaggression.

The meaning of suicidal behaviour of the type of "calling" consists in activation of help from outside in order to change the situation. The position of the personality is less active in this case. In suicides "avoiding" punishments or sufferings the essence of conflict is in the threat to personal or biological existence, and a high self-appraisal being in opposition to it. The sense of suicide is in avoiding present threat intolerance by the way of self-removal.

"Self-punishment" can be defined as a "protest in the inner world of the personality", the conflict for the most part internal under a peculiar splitting of Ego, interiorization and co-existence of two roles: "Ego-judge" and "Ego-accused". The sense of self-punishment suicides has somewhat different features in cases of "elimination of the enemy in oneself" (so to say "from a judge", "from above") and "redemption of one's fault" ("from dependant", "from below").

In suicides of "refusal" a marked divergence of the purpose and motive is not revealed. In other words the motif is life-refusal and the purpose is self-murder.

The above three types of suicidal behaviour represent analogues to general behaviour strategies in conflict situations. On lengthwise analysis of the individual behaviour of self-murderers during previous years of their lives predilection of reaction of a definite type, coincidence of behaviour relations in conflict with suicidal ones according to their personal meaning are revealed. This confirms the main theoretical principles of suicide concept, in particular, the role of personal links in development of suicidal behaviour.

Suicidal behaviour is the consequence of social and psychological deadadaptation of the personality in the conditions of microsocial conflict. It is the result of interaction of situational and personal factors. Neither a specific character of conflict situations, on the one hand, nor specificity of personal characteristics, on the other hand, determine the character of a behaviour reaction and a simple "superposition" of these two factors do not give systemic representation of behaviour mechanisms. In order to understand adequately suicidal behaviour, it is necessary to answer two questions in each case: "Why does a person commit or intend to commit a suicide act?" and "What does he want to do it for?"

The answer to the first question requires analysis of objective life conditions of the self-murderer, the answer to the second question has to explain how the self-murderer estimates the

situation, what the situation looks like, what he wants to get as a result of suicidal threats and realization of the suicidal act. In other words, while answering the first question it is necessary to determine the self-murderer's life situation, his status in microsocial surroundings, his health condition, his mental state, and while answering the second question it is necessary to determine the purposes of the self-murderer, his internal motives, whether his intentions are sufficiently or insufficiently thought over, i.e. psychological grounds for committing suicide. Having received the answers to both questions one can find out objective and subjective factors of social and psychological deadadaptation of the personality to his social surroundings. As any other behaviour suicidal one is socially determined thus it has a definite social ground, and psychological and cultural factors are the conditions in which one or another form or type of suicidal behaviour are manifested.

The person's adaptation to social surroundings is characterized by his successful socialization, forming the aims and demands, the system of motivation, value orientations, inclusion into social and occupational groups, etc. Deadadaptation suggests disturbance of mechanisms of interaction between the person and his social surroundings.

The necessity to realize the essence of the situation, to explain it and to give it an integral estimation, to hold the situation and by means of reorganization of sense system to change one's behaviour arises in critical moments of life. Similar in their objective signs conflict circumstances (whether they are family conflicts or divorce, insults or professional failure, etc.), even if they affect the most important spheres of the personality, i.e. they have the character of mental trauma, they do not determine monosemantically behaviour tactics. Some persons in such situations try to struggle with the "enemy", second "call for help", third try to avoid threatening moments, fourth are disposed to blame themselves, and fifth "to lose heart" and thus jeopardize themselves. These well-known differences result from the features of the person who have survived mental trauma.

The person's position in a conflict situation is a sensible formation which integrates the person's attitude to the situation and to himself, situation estimation, prognosing of its outcome, which is the basis of his behaviour when choosing the tactics. Having found himself in a conflict situation the person structures an integral situation and first of all he distinguishes two main points "Ego" and "Not ego" and he places them relatively to each other in a subjective space. The final choice of behaviour tactics is

directly determined by the position which is formed in the process of self-determination and it is accepted by the subject.

The final position is not always definite, it can be labile, ambivalent, contradictory, which is reflected on one's behaviour. The process of self-determination is often extremely limited in this case, the subject takes instantly the position which directs his further acts. And, at last, self-determination as a voluntary activity (free choice of position) for some persons, seems to be the consequence of external compulsion for others; in other words, the subject either takes some position or he finds himself in it. The formed estimation of the situation as "unchangeable" sharply restricts the internal "field of vision" and blocks search activity. The following six signs characterize "a loss" position of the personality.

1. Fixation of position. The person is not able to change the situation, he cannot freely manipulate with its elements in space and time.

2. Involving, i.e. placing himself into the point of threatening forces application; view to the situation from "inside". Inability to detach from the conflict situation.

3. Narrowing the position of the personality in comparison with the sphere of conflict situation. Narrowing of the sense sphere occurs at the expense of limited notions about his own resources and of increasing isolation from the surrounding .

4. Isolation and closed position. In the structure of realization of conflict relations instead of adaptive position "We — they", there is a more vulnerable confrontation "I — they" suggesting a person's estrangement, his loss of relations with reference groups, identification disorders.

5. Passiveness of position. Imaging conflict participants actively directed to him, the patient cannot imagine his constructive acts (attacks, defense, escape, etc.) in the conditions of the formed image. Such passiveness of the position depreciates any solution known to 1 he person. In passive positions the knowledge and experience are not only actualized, but they are turned down as well.

6. Lack of development in time perspective, absence of future are closely connected with the above-mentioned signs of "a loss" position. The future is presented only as continuation or aggravation of the present situation. This position brings the person to a suicidal behaviour, but it is not sufficient for its development.

Conflict situation overgrows into a suicidal crisis only when main sense formations are involved in its sphere, value attitude to life and death. Sense images exceed the limits of certain circumstances, they cover wider and more distant social situation

concerning the person's notions of the future "Ego". The process of self-determination and formation of the personality position is developed on a higher level. In the structure of a true sense field, the situational position, which while keeping "a loss" character, already certifies not only about the person capitulation in this situation, but also about his life collapse. Passiveness of a general life position, block to remote perspectives are equivalent to impossibility of self-realization which results in loss of life value, and these are specific grounds for the origin of suicidal behaviour.

Thus suicidal behaviour is any internal and external forms of mental acts directed by the idea to commit suicide. It should be emphasized that the term "behaviour" unites various internal (including verbal) and external forms of mental acts. Internal forms of suicidal behaviour include suicidal thoughts, notions, emotional experience and suicidal tendencies which are further subdivided into projects and intentions.

The listed number of notions on the one hand reflects differences in structure, in subjective fulfilment of suicidal phenomena and, on the other hand, it presents the scale of their intensity and readiness to change into external forms of suicidal behaviour. It is advisable to use three levels of the scale singling out a peculiar undifferentiated «ground» in the form of antivital sufferings. They include reflections about the lack of life value. There are no clear notions about the own death, only rejection of the life.

1. The first level includes passive suicidal ideas, and is characterized by notions and fantasies about death but not about self-murder as spontaneous act (activity).

2. The second level includes suicidal projects, there are active forms of suicidal manifestations, i.e. the tendency to suicide, the intensity of which increases parallel to the degree of the plan elaboration. The means of suicide are being thought over.

3. The third level suggests suicidal intentions added to the decision and resolute component causing a direct change into external behaviour.

The external forms of suicidal behaviour include suicidal attempts and committed suicides. Suicidal attempts are purposeful manipulating on with the mean of committing suicide which does not result in death. Suicidal attempts and suicide undergo two phases in their development. The first phase is a reversible one, when the person himself or by interference of other persons can put an end to his attempt. The second phase is an irreversible one and it frequently ends with the person's death (committed suicide).

Chronological parameters of these phases depend on both intentions and the means of attempts.

According to modern concepts, suicide is regarded as a result of social and psychological deadadaptation of the personality in the conditions of his microconflicts. Feeling that the conflict cannot be solved by common means he chooses suicide.

Suicidal decision and moral responsibility are associated with the notions about suicide and attitude to this phenomenon developed in the sphere of public opinion. It is not a secret that the idea of suicide circulates in the public opinion and is reproduced by different means of culture. The attitude to suicide in the society as well as at the level of individual consciousness, is closely connected with ethical attitude to life and death.

Suicide is a signal of disaster, it calls for help and indicates desperate conflict situation. In each case suicide demands special medical efforts.

When rendering medical aid to the people who are under suicidal threat, there is no causal therapy that would be carried out according to certain rules and would guarantee curing. The purpose of the treatment is to solve the problems causing suicide and not to prevent suicide by any means. Nobody but the person himself «who has got tired of life» can protect himself against suicide.

Psychotherapy carried out with a self-murderer is aimed to persuade him in existence of optimistic opportunities. About 70% of persons, who committed a single suicidal attempt, manage to succeed in developing new life purposes. In 30% of persons suicidal attempts are repeated, half of them are with fatal outcome. The attending doctor should learn to live with realized understanding of this risk. Past experience gives grounds to form a certain attitude to self-murderers. The doctor's efforts must be especially great in order to change the patient's attitude of mind immediately after the suicidal attempt.

The first important therapeutic step in this respect is an attempt to establish contact with the patient. The first question can be as follows: "What forced you to get despaired and made you commit suicide?" Expressing deep sympathy and understanding of despair will make a breach in the disturbed possibilities of contact with the self-murderer and in his isolation from people.

The direct ground for suicide attempt lasts from several minutes to several hours, seldom several days, before committing this act. It is important to know this ground (cause) and, if possible, to know the grounds of previous suicidal attempts in order to find the access to deeper problems of the patient. The experience shows that the cause of suicide conscientiously told by the patient is not

absolute and the only ground for the suicidal act. In any case the crisis situation is the cause for development of a new, unknown problem. The most frequent cause is disappointment in the partner or loss of him. This cause is painful and produces an existential shock to self-respect. The doctor forms an idea about the degree of crisis, its intensity and the patient's will to death. In case of severe suicidal crisis or in acute psychotic states (in patients with endogenous depression, schizophrenia) the only right decision can be constant control over the patient and his hospitalization in order to protect him against his suicidal attempts, In psychoreactive crisis the doctor's position is confirmed by his respect forwards the patient's free will. The less the pressure on the patient, the easier he gives preference to life. Together with his patient, the doctor has to estimate the degree of his will to death. Such a talk can become the first step towards the patient's life. Perhaps, there is nobody who would like only to live or only to die. The self-murderer wants that his will to death would be understood and would be taken seriously.

A more profound meaning of the will to death is frequently manifested in the self-murderer's imaginations associated with estrangement. Physical death is not the purpose. Realizing of this fact helps to understand a real sense of the crisis and its meaning and to find out main fundamental problems of the patient.

The period of rehabilitation and treatment begins after the doctor has established contact with the patient and has determined the degree of the crisis. Psychotherapy of crisis states consists in the following: to give the patient the opportunity to realize his own strength, to be able to understand his purposes and his capabilities to solve problems at present and in future. These are serious steps of psychotherapy in crisis states.

Education, prevention and early diagnosis

General explanation of the character of mental disturbances during suicidal crisis which is given by mass media can destroy prejudice making the patient to oppose himself to «these» people. Even in the case when suicide has demonstrative, "not serious" character, it is necessary to regard it seriously as the means of mental disturbances calling for help. Fears associated with one's own tiredness of life or similar apprehensions concerning other (close) persons result in self-murderer discrimination by doctors including psychiatrists ("this is only demonstration", "psychopath", "such persons can't be helped").

Prevention consists in giving social help in severe life circumstances: patronage of single and aged persons, psychotherapeutic help rendered as early as possible in case of neurotic

weakness in getting in touch with the patient to attain comprehension; in setting up consultation centers (marriage consultation centers) and centers for out-patient treatment (out-patient departments, social psychiatric institutions); setting up charity houses and confidence telephone offices, the staff of which consists, as a rule, of different specialists (psychiatrists, psychotherapists, psychologists, social workers, lawyers). All these services are making a substantial contribution to suicide prevention. Early diagnosis of suicide threat is carried out by different specialists and first of all by family physicians. Extremely seldom, a suicide is not preceded by warning signals. Open or masked utterances and stipulations almost always precede suicidal act.

The knowledge of suicide forewarnings acquires special significance for estimation of suicide risk. It reveals typical peculiarities in non-psychotic suicides. Thus, it is getting possible to describe presuicidal syndrome which is characterized by the following phases:

Feelings and consciousness have been grown narrow, passive turning of concentration to himself, loneliness, feeling of life senselessness and hopelessness are present.

Manifestations of aggression become marked in this phase, self-murderer intentions become particularly evident to his relatives.

A flight to imaginary world occurs. Masochistic and voluptuous thoughts about how the relatives will experience the suicide consequences are added to the suicidal thought. The end of this phase is characterized as «the lull before the storm», the patient is outwardly imperturbable, the plan of self-murder is worked out by him in detail.

The persons suffering from mental disturbances and which are also undergoing their age crisis are to various degree subjected to the threat of suicide. Completed suicides constitute 1/3 of all the cases — «cruel» methods in psychotic suicides occur more often than in non-psychotic ones. Differentiation between psychotic any non-psychotic suicides is to a certain degree conventional as there are no strict limits on the way to a real suicidal situation and in suicidal acts there are much in common. Clinical pictures, in particular, in different forms of depressions are more important in suicide threat estimation than their nosology.

Sick teenagers in whom the leading syndrome is their incapability to contacts, are at increased risk of suicide. They often come from unhappy families, emotionally disturbed, of little endurance, disconnected. Such patients easily became socially isolated in critical phases of life. In puberty and postpuberty

suicidal risk may become particularly great as a result of their living apart from their parents and in unimportant neurotic disturbances.

In climacteric period suicide threat is also higher than in other periods of life.

In suicidal acts alcohol is of great significance. It is used «for courage» before committing suicide. Between alcoholization and suicide, there exist more profound links; suicide often seems the only way out. In chronic drug abuse, suicide may be chosen as the means of «one fine day to fall asleep for a long time». The same mechanism of action is observed in any abuse and particularly when constant taking of «hard stuporifying drugs» results in chronic somatic disturbance.

The disposition to suicide in somatic diseases does not obligatory depend on the intensity of the clinical picture of the disease. Severely ill cancer patients often keep to the end the hope and do not think of suicide. A sudden onset of the disease in real or imaginary threat to professional career can lead to suicide in the first days after preventive examination and treatment.

Thus, any doctor can face with the problems of suicide in patients and he must know how to detect their suicidal intentions and to prevent suicidal acts in patients.

CHAPTER XIII

PSYCHOHYGIENE. PSYCHOPROPHYLAXIS. PSYCHOTHERAPY

Objectives: to discuss the issue and tasks of psychohygiene, valeology, psychoprophylaxis, trend in social - labour rehabilitation.

Psychohygiene is a complex of measures to provide normal development of a person, preservation and strengthening mental health, maintenance of the most desired conditions for human mental activity.

Mental health means (WHO):

1. Absence of the evident mental frustrations.
2. The certain reserve of forces of the man with the help of which he can overcome stresses, difficulties in unexpected circumstances.
3. Condition of balance between a person and his environment in society, coexistence of the person's experience with the experiences of other people concerning "objective reality».

Mental health means absence of mental diseases, normal mental development and desired functioning of supreme parts of CNS. For children it means normal abilities to master knowledge and skills, answer the requirements of school system, follow the norms of behaviour in relations with mates and teachers. Normal development can be defined as harmonic, appropriate to age, normal functioning and intellectual activity, positive emotional state.

Parts of psychology are systematized according to comparative age peculiarities of mentality. There are the following aspects of psychohygiene: psychohygiene of childhood, play activity, education, training, sexual desire, youth, work, family, sexual life, marriage.

Contemporary society is characterized by significant changes in human social activity; thus the requirements to his health and organization of his physical and intellectual functions are increased. Contemporary person can be characterized by decreasing

of his adaptive abilities and functional reserves of organism, disturbed mechanisms of self-regulation. This causes active spread of non-infectious diseases. Subsequently its correction and prophylaxis are required. At the same time possibilities of contemporary medicine do not suit the overcoming of mental and somatic problems. Traditionally these problems in medicine were solved by the experts in hygiene. Main attention was paid to diagnosis of adverse physical and social factors worsening health condition and causing occurrence and distribution of diseases. The given strategy is based on normalization of the environmental factors. However, this strategy does not aim at definition of a health state and development of measures on its improvement. These problems are in focus of **valeology**, a science about laws, ways and mechanisms of formation, preservation, strengthening and reproduction of human health. Appearance and development of valeology is determined by the necessity of new trends and strategies on preservation and strengthening of human health.

Valeology can not be opposed to clinical, nosologic medicine. Moreover, it is a part of it. Common theory of medicine should be based only on the doctrine of illness (pathology) and doctrine of health (valeology). The use of valeological principles increase the efficiency of diagnosis and primary prophylaxis of a number of non-infectious diseases based on revealing adverse risk factors. The basic method of diagnosis in these cases is screening, i.e. examining of practically healthy people, allocation of risk groups among them and maintenance of the appropriate measures directed on counteraction to risk factors.

The main tasks of valeology:

1. Development and performance of the notions concerning the state of health, construction of diagnostic models and methods of its estimation and prognosis.
2. Quantitative analysis of the health of a quite healthy man, its prognosis, characteristics of the quality of life.
3. Formation of health psychology, correcting the way of the life by the individual with the purposes of strengthening health.
4. Performance of the individual health-improving programs, initial and secondary prophylaxis of diseases, estimation of efficiency of health improving programs.

Scientific field of health has been developed for a long time. Such famous scholars as Avicenna, Hippocrates, Galen, I.M. Sechenov, S.P. Botkin, I.P. Pavlov dealt with this problem. In last decades — N.M. Amosov, R.M. Baevskij, G.L. Apanasenko, V.P. Kaznacheev, etc. The term «valeology» was offered by I.I. Brehman (1982, 1987). He suggested science about health should be

complex, based on achievement of medicine, psychology, ecology, biology, pedagogics and other sciences.

During all its history valeology was aimed at solving the following problems. First of all it was the definition of a notion of individual and public health, healthy way of life. Then it was evaluation of an active strategy of health formation. Integrative character of valeology is a result of combining variety of initial sciences and different directions of work and methods of research used in its formation. Thus, development of the physical state of the person is connected with physical education and sports, public health services, system of rehabilitation measures. Intellectual potential is strengthened by the system of education and science; development of spiritual potential is defined by religion, art and literature.

Valeology is closely connected with other sciences about the human being: with medicine, biology, psychology, pedagogics. Prevention of disease development and preservation of human health is the basic task of hygiene. It is revealing and prophylaxis of adverse influence of natural and social factors on human health. First of all, valeological influence deals with strengthening of individual health and increasing human ability to resist the adverse factors.

Valeopedagogics (pedagogics of health) is a new trend in a pedagogical science, on which system of health education should be based. The purpose of valeopedagogics is to increase the level of human health.

Valeopsychology is a scientific-practical discipline which study the regulations of mental processes and central mechanisms of mental self-regulation. This processes and mechanisms provide normal functioning and development of mentality, help a human being to satisfy the basic needs, open abilities, preserve and improve health.

The subject of valeology is an individual health, mechanisms and laws of its formation.

According to the Code of WHO, health is defined not only as an absence of illnesses or physical defects, but as a state of complete physical, spiritual and social well-being.

There are the following components of health:

- 1) physical (physical activity, physical well-being, physical limits);
- 2) mental (mental well-being, control of behaviour and emotional reactions, functioning of cognitive processes);
- 3) social (interpersonal communication);

4) role (ability to perform socially accepted roles at home and at work);

5) general estimation of health.

There are three interconnected aspects of health, necessary for correct planning of valeological measures and based on the appropriate levels of personality: somatic, mental and spiritual. The spiritual aspect of health is a motivation for a healthy way of life, long and happy life, independent activity in formation and strengthening of person's health, careful attitude to life and health of others.

Commonly there are 5 groups of health:

1. Healthy persons with normal development and normal functioning.

2. Healthy persons with functional or some morphological deviations and reduced resistance to acute and chronic diseases.

3. Patients with chronic diseases in a condition of compensation with the preserved functioning of organism.

4. Patients with chronic diseases in a condition of sub-compensation with reduced functional abilities.

5. Patients with chronic diseases in a condition of de-compensation with considerably reduced functional abilities of organism.

An important aspect of valeology is prenosological diagnosis, i.e. recognition of the states of organism, which are between norm and pathology. The subject of prenosological diagnosis is the process of organism adaptation to inadequate conditions of environment, which can lead to complete or partial adaptation to environment without violation of homeostasis, insufficient or unsatisfactory adaptation, failure of adaptation with homeostasis violation.

Basic objects of prenosological diagnosis:

1. Chronic boundary or transitive condition of the organism.

2. Being under strain (short-term).

3. Overstrain.

4. State before the disease in a stage of an exhaustion of regulator mechanisms with homeostasis disturbance, or in a stage of subclinical forms of the diseases.

The main task of psychohygiene is creation of favourable conditions for harmonic development and performance of all human mental abilities (stable family, normal meals, good financial situation and house conditions, etc.).

Children's psychohygiene of preschool age (period of formation of personality's basis) includes:

1. Maintenance of a reasonable schedule of the day, meals, employment, play activity, rest, sleep, etc.

2. Providing of a normal psychological situation in family and children's educational environment, normal care and requirements.

3. Problem of completeness of the family, its well-being (incomplete families, divorces, single mothers, emotional stresses, alcohol, etc.), habitation (conflicts, early sexual experience, etc.), financial support, etc.

Extra attention should be paid to the problems of school psychohygiene (pre-teenage, teenage and youthful), because of increasing number of mental diseases in this period.

The adverse influence is set with the following general school problems:

1. Inability to study well due to abnormal and complex educational programs.

2. Hostile attitude of the teacher to "bad" schoolboys, injustice to all or to separate persons; mutual antipathy, etc.

3. Changes in school collective, necessity to adapt to the schoolmates and teachers, to the already existed environment.

4. Hostility in children's collective, complexity of the emotional relations in children's collective, meaning of sympathies and antipathies, aspiration to be a leader and independent person, special role of traits of character, etc.

The following common psychological problems take place:

1. Learning psychological sexual distinctions in pre-school and school age — sense of belonging to a certain gender, to the certain labour and economic orientation, family orientation, etc.

2. Sexual physiological and psychological problems in teenage and youthful age — puberty, occurrence of secondary sexual characters, change of appearance, difficulties in professional orientation, aspiration to occupy the appropriate social status to be independent, etc.

In providing of psychohygiene of a family, which can be regarded as a background of normal mental development the following factors are important: mutual respect and support, mutual aid in home affairs, the psychologically rational solutions of conflicts, involving all members of the family in discussing the important family decisions, maintenance of a healthy way of life (without harmful habits), care about child's modesty, honesty, diligence (on an own example), etc.

Psychohygiene plays a significant role in preservation of mental health (rational organization of intellectual and physical work, way of work and rest, optimum load, favourable psychological atmosphere in labour collective, positive emotional attitude to work, adequate choice of a profession, etc.).

Psychoprophylaxis is a complex of measures to prevent mental frustration and diseases (initial psychoprophylaxis), and also recurrences of the mental diseases (secondary psychoprophylaxis).

There is primary, secondary and tertiary prophylaxis. Primary prophylaxis means protection of health of future children, genetic consultations, measures directed to improvement of the women's health, organization of obstetric aid, early revealing of malformations in the new-born, medical pedagogical correction.

The secondary prophylaxis is early diagnosis, prognosis and prevention of dangerous states, early beginning of treatment, using adequate methods of correction, long supporting therapy.

Tertiary prophylaxis is a system of measures aimed at the prevention of physical inability at chronic diseases.

Psychoprophylaxy consists in the following measures:

1. Prevention of psychoviolating influences at home and at work (basis of prophylaxis of neurosis, psychopathy and some other mental pathologies).

2. Prevention of iatrogeny and didactogeny.

3. Providing with necessary treatment and psychotherapeutic care for somatic and recovering patients (attention, goodwill, etc.).

4. Individual approach to the definition of industrial amount of work after illness, regulation of working conditions and life.

5. Performance of antirecurrent therapy after illness. Besides the mentioned ones, the especially important place in

psychoprophylaxis is occupied by creation of correct dietary regimen and resting time, favourable psychological atmosphere at home, medical establishment and at work, psychotherapeutic training of all medical staff and appropriate approach to the patients.

Psychotherapy means a kind of interpersonal interaction when the patients are treated with psychological means to solve mental problems and difficulties (term as the physiological and medical factor belongs to K.I. Platonov). From the set of psychotherapeutic methods the extra attention should be paid to rational psychotherapy, suggestive psychotherapy, auto-training, psychoanalytic psychotherapy.

Rational psychotherapy is the method aimed at logic ability of the patient to compare, to do conclusions, to prove their validity. The basic stages of rational psychotherapy are:

1. Explanation.

2. Persuasion.

3. Reorientation.

Rational psychotherapy can be carried out as individual or group psychotherapy.

Suggestive psychotherapy is a number of methods, based on such medical factor as hypnosis or autohypnosis. Hypnosis is used in vigil condition, hypnotic sleep (hypnopsychotherapy), narcotic sleep (narcopsychotherapy). Among the methods of autohypnosis autotraining is the most popular one.

Auto-training is an active method of psychotherapy, psychoprophylaxis and psychohygiene. It is directed to recovering of dynamic balance of the homeostatic system of self-regulating mechanisms damaged in stressful situation.

Psychoanalysis is a psychotherapeutic method developed by Z. Freid. Basic focus is upon unconscious mental processes. Psychotherapeutic methods are used for their analysis. Classical psychoanalysis includes theories of common mental development, psychological origin of neurosis and psychoanalytic therapy.

Social labour rehabilitation includes a complex of measures on maintenance and restoration of social communications and professional skills of the patient after illness. Drug treatment (supporting therapy) is also included.

The task of rehabilitation is to adapt the patient to former or varied working and home environment by training of the preserved abilities of the patient.

Labour rehabilitation restores work capacity of the patient with the help of drugs, physiotherapeutic procedures.

Social rehabilitation is creation of the appropriate environment in family (improvement of living conditions, financial support), restoration of the contacts with others, restoration of the social status of the patient.

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