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Up to the present, psychology has not been given much publicity in Czechoslovakia; nevertheless, a little probing reveals that this science—at one period regarded in certain non-scientific circles as an anachronism under socialism—has been modestly making great strides.

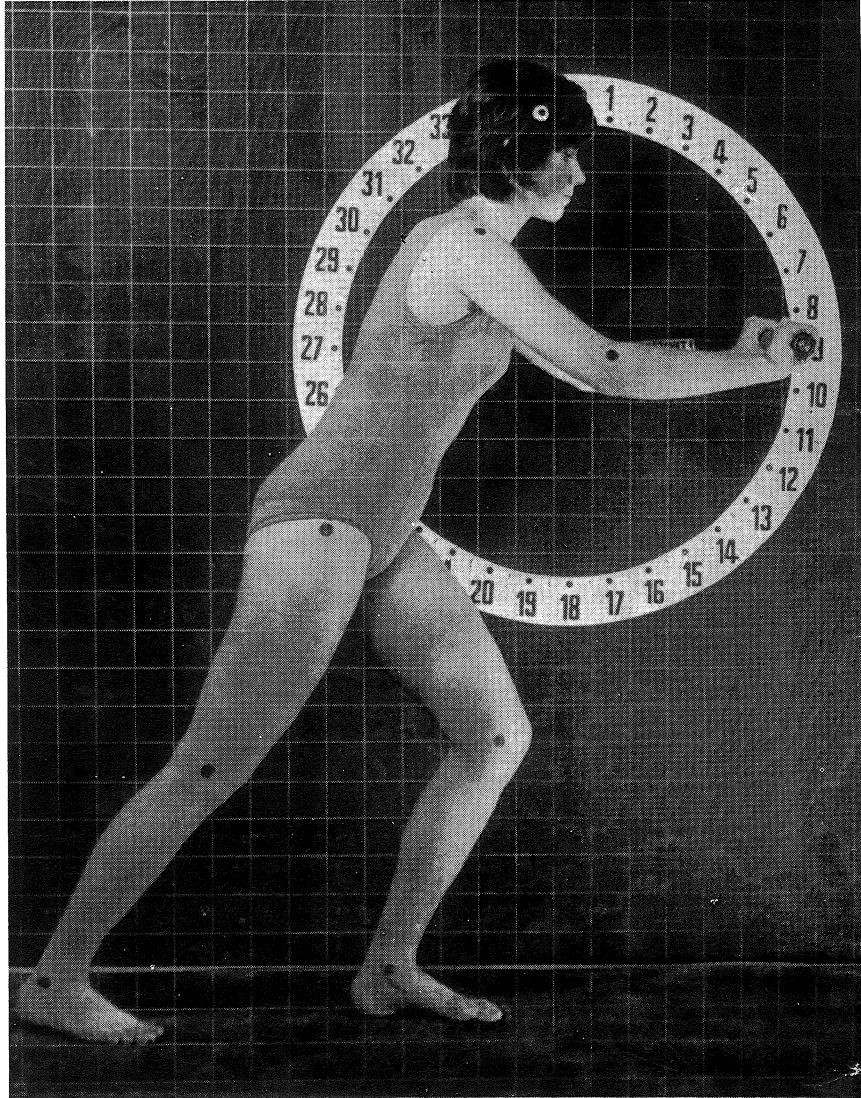
At the end of last year, a congress was held on the psychology of personality. Papers were read on general and special problems of personality, e.g. the structure of personality, specific attributes (will-power, decision), age and visual perception, routine observation of personality in clinical practice, experience with intelligence and personality tests, personality in interpersonal linguistic contact, the psychology of management, the psychology of certain groups (sportsmen, smokers—rational health arguments against smoking were claimed to be insufficient: nicotine is a factor affecting the higher nervous system and cannot be treated in isolation but as part of a whole neurosis—juvenile delinquents); in educational psychology, the personality of pupils revealed during workshop practice, problems involved in the use of teaching machines, the problem of the slow child in the elementary school and the need for streaming, up to now rejected by the teaching profession here.

Czechoslovak Life asked several psychologists present to tell our readers something of the work in their fields.

A MODEST SCIENCE

by Rosemary Kavanová

Photos by Oldřich Karásek, Karel Konečný, Jaroslav Čtvrtečka, Ladislav Dohnalík and Jan Tyl



Professor Vladimír Tardy, who organised the congress, gave us this general survey of psychology in Czechoslovakia: Theoretical and applied psychology now covers many fields of activity in Czechoslovakia. There are four psychological departments of philosophical faculties and four research institutes: the Institute of Experimental Psychology, which investigates mainly perception, the Institute of the Psychology and Psychopathy of Youth and two university institutes researching the psychology of motor activity and vocational guidance, and psychic regulation in relation to age. Psychology is also associated with psychiatric and educational research. A definite programme of research became possible a few years ago. The main subjects of research are coordinated under a State plan which until recently was concerned primarily with practical educational problems. Works have been published on the applied theory of higher nervous activity and of results of the application of psychology in various fields—clinical diagnosis, reading, the psychology of sport, the work of foundry operators and to a certain extent child and youth psychology.



Prof. Vladimír Tardy of Charles University Psychological Department.

Two congresses of Czechoslovak psychologists have been held, the first in 1961, being concerned with methodology. The purposes of congresses is to present the results of new research and to make known important developments in theory that have been neglected up to now in this country. Social psychology, for instance, is a comparatively young branch here. One of the obstacles to a more rapid development of theoretical research has been the difficulty of obtaining foreign literature. Now, we have more opportunities of making personal contacts abroad and more translations of Western psychological literature are being published. Interest is growing in the application of psychology in spheres vital to our society and the national economy. Appeals for the help of psychology in practical fields are

not, however, always combined with the establishment of a post for a psychologist: unfortunately, the idea is still widely prevalent that the work of a psychologist can be done by a person with a brief course of training.

Applied psychology takes the forms of clinical, educational and industrial psychology. Psychologists are employed in the health service in psychodiagnosis and, in collaboration with psychiatrists, in psychotherapy. Owing to the shortage of trained graduates, all the posts for health psychologists have not yet been filled. Educational psychologists are employed in homes for educationally severely subnormal children and in institutions where such children are temporarily accommodated until they are classified. Psychologists are also on the staff of approved schools and of some prisons. Educational advisers have recently been introduced on the staff of some schools to give vocational guidance and to be responsible for backward children. Their work is directed and coordinated by psychologists in central institutes.

The study and application of industrial psychology was resumed in 1956, after a hiatus of eight years, at first on a small scale, until further specialists could be trained. More women than men study psychology, but in industry more male psychologists are needed. Here, too, psychologists work in centres rather than directly in factories or other enterprises.

Conferences on the role of psychology in a socialist state have given Czechoslovak psychologists a fairly integrated picture of how application should be developed so that psychology can contribute to the solution of urgent problems in education, health and economy. An increase in the number of psychologists is anticipated and an improvement in their qualifications is planned in particular through systematic post-graduate training.

THE FIGHT AGAINST NEUROSES

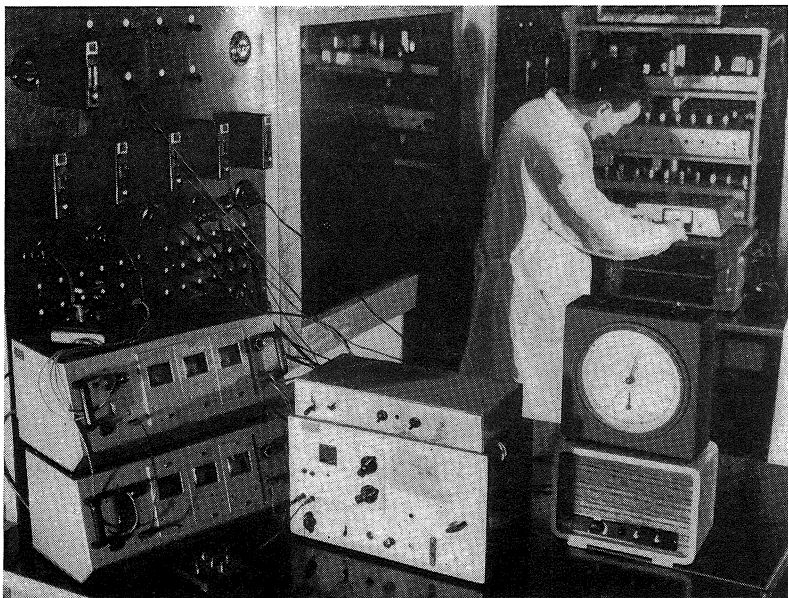
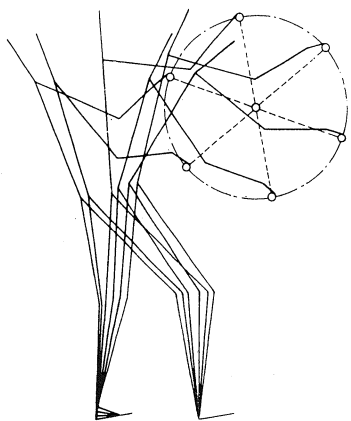
The Psychiatric Research Institute in Prague recently ascertained, from questionnaires on neuroticism and "general contentment" sent to several hundred persons, the following neurotic symptoms in the healthy subjects: fatigue and exhaustion (70 per cent), irritability, self-pity, hypersensitivity and low spirits or bad mood. The incidence and intensity of neurotic symptoms were twice as great among technical and administrative workers as among manual workers. Age did not appear to play a decisive role.

Most people manage to keep their neurotic symptoms under control, but in their more intense forms—psychoses and neuroses—they require clinical treatment. The most frequent causes of neuroses (the aspect of mental illness we are concerned with in this article) are psychic traumas (the death of a loved one, natural catastrophes, disappointment in important relationships etc.) or, more often, long-duration tensions and conflicts in interpersonal relations, particularly at work (mainly in the case of men) and in the family (mainly in the case of women). Twice as many women as men suffer from neuroses. Whether a neurosis arises, depends on the resultant of the strength of the extraneous causes and the power of resistance or adaptive ability of the individual's nervous system.

Dr. Hugo Široký of the Šternberk Psychiatric Hospital (700 beds, 1,200—1,300 patients a year) said: "A mentally ill person is a person in an acute mental crisis. This often necessitates treatment using psychological methods. The human being's strongest feelings—and therefore the most powerful source of *élan vital*—spring from human relations. Clinical psychology studies forms of interpersonal relations that can have a favourable effect upon health."

LABORATORY RESEARCH

Far left: Work activity on the ergometric wheel. Left: Scheme of the subject's movements. Below: Electronic machines record reactions in the research into the acquisition of motor skills. In one experiment, a panel with 12 numbered stimuli, arranged in a circle, is used. The experimenter stipulates combinations of stimuli and the subject presses the corresponding buttons. Another experiment uses an apparatus consisting of ten small levers, to each of which is attached an electric bulb. When the bulb lights up, the subject presses the appropriate lever. The experimenter stipulates and changes the number of stimuli, their order, duration and the intervals. The subject's reactions, their quality, course, latency and duration are recorded on an oscillograph.



Dr. Václav Břicháček described briefly the research carried out by the Psychological Institute of Charles University under Professor Jan Doležal. The Institute, employing twelve scientific workers and an administrative staff of thirteen, is engaged in research into industrial psychology and in 1964 it began to research vocational guidance. The Institute focuses on basic problems and methods of industrial psychology, e.g. the psychological aspects of work as a socially useful process, problems of the regulation of work activity, the work curve, the influence of knowledge of results on human performance, the analysis of errors, the analysis of accidents and defective products etc.

The Institute is equipped with a laboratory with electronic and mechanical instruments, library, documentary and statistical departments, archives of diagnostical material, dark room and so on.

The greatest progress has been made in laboratory research into the analysis of human performance, which is facilitated by several original instruments, designed and constructed at the Institute. One of them assists in the analysis of continual simple activity, analogous to that which appears in conveyor belt production and in some mechanised operations. The subject of the experiment is faced with a model situation: he is asked to solve various simple tasks—simple arithmetical examples, distinguishing between simple shapes and so on. The tasks are either set at regular intervals, corresponding to induced work rhythm or they depend on the subject's own rhythm (spontaneous work rhythm). The lengths of the reactions are recorded by the electrochronograph, the units being selected within a range of a hundredth to sixteen hundredths of a second. Errors are also registered.

Another apparatus is designed for research into the regulation of cyclic movements. It is the ergometric wheel which registers the speed of the movements and the strength of the subject, also the bioelectric activity of various muscle groups and body motions: it is possible to vary the resistance to be overcome by the subject. The laws governing the rhythm of spontaneous and consciously regulated work movements are also studied.

Experiments have been carried out to show the influence of knowledge of results on work activity (e.g. the subject is told "you're doing fine", "you've made a mistake" etc.). The outcome of this research is applied in the design of equipment for automated production.

The Institute makes the results of its research available to industry and public transport and, in a consultative capacity, is instrumental in promoting their practical application.

"One of the main tasks of the psychologist in clinical practice is to help the psychiatrist in diagnostics, especially in unclear cases," explained Dr. Stanislav Kratochvíl of the Brno Psychiatric Clinic. "The psychiatrist often requests from the psychologist a picture of the patient's personality and level of intelligence. Raven and Wechsler intelligence tests are widely used by Czechoslovak psychologists. Personality tests provide the following information: the patient's emotional state—temperament, intro- and extraversion, adaptability—his character—philosophy and scale of values—interpersonal relations, interests, gifts and abilities, habits and disposition. Some personality tests are projective, e.g. the Rorschach test, in which the patient is presented with ink blobs and has to interpret them, and the thematic apperception test consisting of unclear pictures which the patient describes. The patient projects his subjective experiences into this material. Wartegg's picture completion test is used and also Rosenzweig's picture frustration test which shows whether the patient expresses aggression outwardly or keeps it to himself.

"Personality inventories are widely used by Czechoslovak psychologists, e.g. a thorough American inventory of 550 items. Dr. František Engelsmann is responsible for the translation, testing and adaptation to Czechoslovak conditions of foreign inventories. The Brno Clinic has drawn up its own personality inventory of 150 items which present various situations with a number of possible attitudes and modes of behaviour: the patient underlines the one that applies to him in each case. For example: *If I am offered a selection of goods in a shop—I make my choice straightaway—I can't make a choice—I go away and think it over—I hesitate for a while and then I chose.* In the hierarchy of values item, the patient is asked to put in order of importance: friendship, work, children, health, success, so-

cial position, money, freedom, a car etc. This inventory is horizontal, that is to say it shows the patient's present psychic state. We are preparing a vertical inventory that will reveal development in the patient's state.

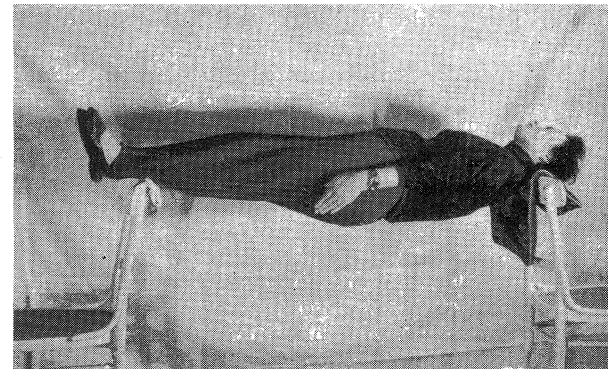
"Of course, the psychologist must first create a feeling of trust in the patient before using the questionnaire. The methods I have mentioned are supplemented by thorough exploration of the patient's psychic state during conversation and observation of his behaviour.

"Investigating the patient's psychic state is one part of specialised psychological clinical practice. Another part is psychotherapy (which is one aspect of psychiatric treatment). Various methods are used, according to individual cases. There are suggestive methods, such as hypnosis, in which a number of physical and mental functions can be influenced by suggestion. For instance, a country woman of about forty was brought in, unable to stand on her feet. During the night, her district had been flooded. She had run out half-asleep and found her yard under water. Her legs crumpled under her. The "paralysis" was functional, not organic. The patient proved to be highly suggestible and was soon put into a deep hypnotic trance. 'Do you like dancing?' I asked. She nodded. 'Then listen to a waltz being played. A nice-looking man is asking you to dance. Go and dance!' She got up and danced with the non-existent man. When she was awakened from the trance, she was able to walk, the neurotic symptom had disappeared. Of course, such quick and simple cases are rare."

Hypnotic sleep therapy is used by Dr. Ivan Horvai, who has experimented with age regression, jointly with Dr. Jiří Hoskovec. Dr. Kratochvíl mentioned his own not yet published experiments with prolonged "waking" hypnosis. The somnambulant patient remains in a hypnotic trance for several days; his behaviour does not differ from conscious behaviour, but, of

course, after the termination of the trance, he remembers nothing of the period. The German method of autogenic training is especially recommended at the Brno Clinic by Ass. Prof. Milan Bouchal. It combines body relaxation with intensive concentration on situations, such as: *My left arm is heavy* etc. When the patient has mastered the exercises, he uses therapeutic auto-suggestive formulae directed at removing his difficulties. Group training is recommended by Czechoslovak psychotherapists.

"Existential frustration is treated by rational therapy, on the basis of the experience of Prof. V. Frankl of Vienna. This problem of losing the meaning of life may have objective reasons—loss of a person for whom the patient has lived, or of position or, in the case of a student, non-acceptance at the university—or subjective—through philosophical speculation the patient arrives at the conclusion that life is not worth living and a suicidal state results. The psychologist's task is to help the patient find his



The "cataleptic bridge": catalepsy, or muscular rigidity, induced by hypnosis by Dr. Kratochvíl.



A family scene is prepared on the psychodramatic stage in front of the group and Dr. Hugo Široký.



Patients often express through art feelings they otherwise find difficult to communicate.

own meaning of life by discussing with him various human values and ways of making his life useful, to society or to some person who is near to him.

"Abreactive methods are another form of therapy. One is narcoanalysis: the patient is put into a state of light narcosis and the psychologist or psychiatrist conducts a conversation with him on themes connected with his problems, especially those that have been suppressed by the patient and cannot, therefore, be brought to light in normal discussion. Dr. Robert Konečný has introduced trichlorethylene as a narcotic with success. Positive effects have also been achieved with excitative, stimulating drugs, such as amphetamine. In the amphetamine interview, the patient feels compelled to talk out his problems; this is accompanied by relief of tension and symptoms."

We quote Dr. Široký again:

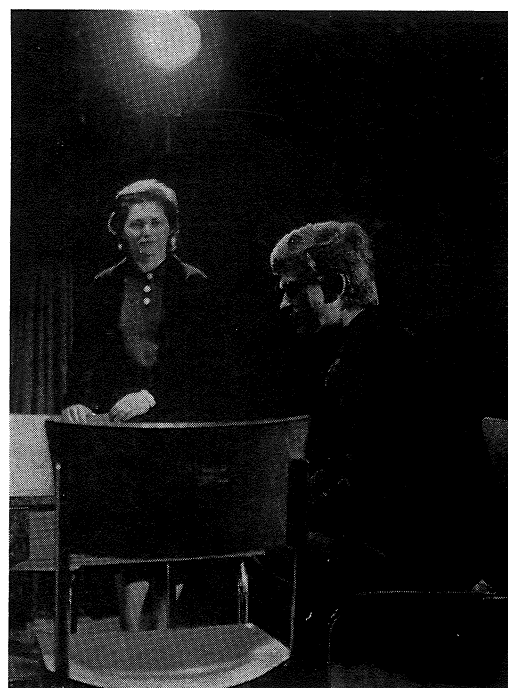
"It must be remembered that neurotics are people who do not understand themselves: they suffer from a conflict between their often unconscious needs and their great demands on life on the one hand, and everyday reality on the other hand. This conflict evokes tension, anxiety or self-deception, giving birth to neurotic symptoms such as irrational fears, obsessions and feelings of weakness and exhaustion.

"In analytical psychotherapy, the patient lives through moments of his life again. He brings to life long-forgotten memories and longings. He reveals his ideas and emotions, even his dreams.

"Perhaps even before the time of David who soothed the melancholy Saul with his lyre, the effect of music and art on the mental state was known. Modern arttherapy—part of psychotherapy—puts to use this age-old experience. The patients at our hospital have their own club with a stage on which they themselves and the staff perform; they also invite artists and musicians to talk to them, or the local theatre to perform for them. The patients are encouraged in active artistic expression through painting and drawing. Even the worst cases can find in this a bridge from their "alienated" world to reality.

"In the course of the therapy, the patient gradually becomes aware of the hidden feelings and complexes that have been driving him into a neurosis. For the therapist, tracing the symptoms to their source often resembles detective fiction. Here is an illustrative case:

"Forty-year-old A.L. after some trouble at work, attempts suicide. He explains his overwrought state as the result of overwork. It transpires that he has taken his difficulties at work too much to heart because of his strained relationship with his wife, which has caused him to attach a one-sided importance to his job. He idealizes his wife and idolizes her and at the same time is continually disappointed that he cannot draw from her the kind of re-



The mother, Dr. Horáková, reproves the son (the patient) for his non-adaptive behaviour.

sponse he longs for. He tries to be tolerant but he is worried that he is not making a big enough sacrifice. His guilt feelings are even stronger towards his mother. We come to a childhood dream where he builds a castle for himself and his mother and anxiously awaits her return. Under the constant pressure of her loving care, he is convinced that he can never repay the sacrifices she has made for him.

"Individual therapy is primarily a relationship between therapist and patient. It has the advantage of thoroughness and the disadvantage of time-consumption and the danger of becoming remote from life. In group therapy, patients follow their reactions in the group and discuss together their views and personality traits and their connexion with their illness.

"Mrs. R.T., a 21-year-old clerk, comes to us after an attempted suicide, as a result of a broken marriage. She and her husband have quarrelled incessantly; their year-old marriage is on the rocks. Her life history is analysed by the group who point out her lack of adaptability, her demanding nature, her emphasis on outward appearances. The husband attends another group. The influence of the group and confrontation with other similar histories makes them realize their mistakes and their marriage is stabilised.

Psychodrama

"Psychodrama, whose scientific father is J.L. Moreno, makes use of dramatic improvisation. The themes are the lives of those taking part. Psychodrama extends the means of communication by gesture and mimicry. On the psychodramatic stage, the patient relives the conflicts

in his life. Because he experiences them anew and in different surroundings, he experiences them differently; he is liberated from the burden of the past.

"Psychodrama, is of course, only part of the whole treatment. The miming on the stage often enables us to make contact and to uncover what we should otherwise have discovered in a long, roundabout way.

"A middle-aged woman is sent to us on account of bizarre behaviour: she has been collecting stones and filling her pockets with them. She has refused to reveal her reasons. The patient, surprisingly, agrees at once to take part in the improvised play, although verbal contact has been unfruitful. The play is a fairy tale and brings to light the following motivation: the patient plays the role a poor woman who collects stones in the belief that they are bewitched coins. She is seeking a mysterious professor who will break the spell; she will then be rich, instead of penniless as she is in reality."

Psychotherapy is usually as varied as possible: no one method contains the magic key to health. Occupational and sports therapy are further aspects of therapy widely practised, especially at the Kroměříž Psychiatric Hospital which uses the open door system. Behaviour therapy is used by the Slovak Dr. Ondrej Konďáš who has just published *The Role of Learning in Psychotherapy*.

Dynamic psychotherapy is practised at the Neurosis Centre, Lobeč near Mělník, led by Assistant Professor Ferdinand Knobloch, head of the Psychiatric Department of Charles University. The 30 patients are led by three social workers and the co-government of the patients. The patients work for 6 hours a day on a State Farm and spend the rest of the time in group meetings (discussion, psychodrama), social games, dancing and sports (psychogymnastics are being introduced). They stay for 5–6 weeks at the Centre. The essential features of the Centre are: The therapeutic community is isolated and so almost everything that happens there can be related to interactions inside the group. The patients live in a situation similar to real life—real work (not occupational therapy) etc., so that stresses and frustrations appear. The patients project their non-adaptive attitudes into their relations with each other and are encouraged by the rehabilitation workers and consultant psychiatrists and psychologists (who visit the Centre once a week) to interpret their present behaviour. In the group sessions, they also discuss their life histories, and their previous maladjusted behaviour is interpreted. The main therapeutic process is the "emotional corrective experience" which results: the patients gain an insight into the previously unknown motives of their behaviour and correct it. Dr. Knobloch does not advise long-term individual therapy before treatment at the Centre has been carried out. A regular

part of the system is family therapy, practised especially in groups of married couples.

An important part of the system is an extensive use of patients as co-therapists. Patients returning to Prague from the Centre come to an open group where they "initiate" new patients who are to go to Lobeč. They also act as catalysers in the groups of marital partners and family members. A Neurotic Day Centre is planned where, led by Dr. Knobloch's team, selected improved patients from Lobeč will take an active part in mental health work, like marriage counselling, family and school problems.

Over the years, the rate of symptomatic improvement at the Centre has had an upward trend, and follow-up studies have shown that ex-patients are less likely to be again incapacitated by neurotic symptoms than other patients. The Neurosis Centre has been the subject of a special project study by the World Federation of Mental Health.

We have discussed the psychotherapy of neuroses: the field where psychiatry and clinical psychology most overlap. (We have not touched on the therapy of psychoses.) Clinical psychology covers many further problems, but space does not permit a lengthy discussion. Clinical psychologists are often engaged in psychopathological, psychopharmacological and psychophysiological research (e.g. galvanic skin resistance, plethysmograms, tapping etc. in neurotics and psychotics) and in special problems in paedopsychiatry, e.g. emotional deprivation in young children in homes and problems of dyslectics, rain-injured children etc.

Clinical psychology is developing rapidly in Czechoslovakia. At present there are about 100 clinical psychologists, the majority of whom work in psychiatry, the other in paediatrics, gynaecology, orthopaedics and other branches of clinical medicine. In some aspects psychology and psychiatry overlap. There are 7 psychiatric clinics (attached to faculty hospitals), 22 psychiatric hospitals (the largest at Dobřany has 2,100 beds, the second at Kroměříž has about 1,800 beds) and psychiatric departments of general hospitals. In 1960, there were 420 psychiatrists and a total of 18,000 beds. Personnel, equipment and experience are gradually increasing and with them the possibility of helping those who succumb to the tensions and conflicts of our time.

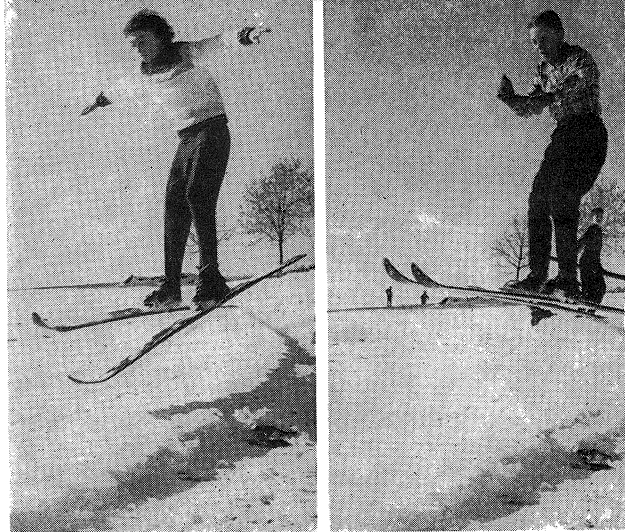
THE PSYCHOLOGY OF SPORT

Another field of psychology is the study of specific groups of people. Dr Antonín Stránský is engaged in the psychology of sport.

At the beginning, the comparatively few workers in this field concentrated mainly on the technical training of sportsmen. They assisted in the selection and training of trainers. They investigated the process of acquiring motor skills and were able to improve the effectivity of training methods. Incorrect motor habits often require long and difficult re-training; therefore, expert instruction is essential from the outset. An untaught, or badly instructed, skier tends to lean backwards on a steep downhill run, with the result that the skis slide away from under him; he falls and his fear and lack of confidence are intensified. Correct, psychological training prevents this.

The training of a competitive, top-rank sportsman is far more complex. He has to exert his whole organism to the maximum and undergo tough training. For this, strong will-power is essential. Psychologists investigate the development of will-power during sport and also determine the particular attributes a sportsman needs for each specific event. For instance, a good memory is needed for the slalom. The psychologist convinces the trainer of the possibility of the sportsman remembering 49 out of 50 different arrangements of posts along the course and suggests methods of memory training. Decision is a necessary attribute; research has shown that a specific kind is needed for defence, and a specific kind for attack, e.g. in football or hockey. Daring also has its degrees: the motorist requires a different kind of daring from the gymnast. Psychodiagnostical methods are used to investigate how and to what extent endurance events in light athletics cultivate perseverance and staying power, team games decision, sports involving risk (diving, ski-jumping) fearlessness. Tests on long-distance runners show that their intensive and strenuous training cultivates a general disposition to develop maximal activity over longer periods.

Investigations are being carried out on personality differences between athletes and non-athletes, particularly in degree of independence and self-sufficiency, initiative, self-discipline, perseverance, and self-control. Team games have



Fear, lack of confidence: "I've got this all wrong!" "It's easy, once you know how!"

been proved best for all-round physical and mental development; therefore, modern training includes them as preparation for all sports events. Research has shown that sport can have a negative effect on personality, too. Decision and fearlessness, if carried to extremes, result in undesirable aggression. Sport can also lead to an impoverishment of personality if other interests are excluded, or even to a disintegration of personality. Examples are known of sportsmen who, having reached peak form, have succumbed to a bad influence and have rapidly declined, physically and mentally.

In connection with training for important matches or competitions, methods have been worked out that help athletes to overcome obstacles. The psychologist studies individual pre-contest psychic and physiological states and makes suggestions to the trainer for dealing with them. The mental states include forgetfulness, apathy, fear, lack of self-confidence, impatience. Psychologists look for ways that will help the sportsman to control or exploit advantageously these states, through limbering up, relaxation, entertainment, the presence of members of his family and so on. Laboratory researches are investigating the mechanism of self-regulation in human beings and its effect on activity. The results help to harmonize these psychic states and facilitate the psychological preparation of sportsmen.

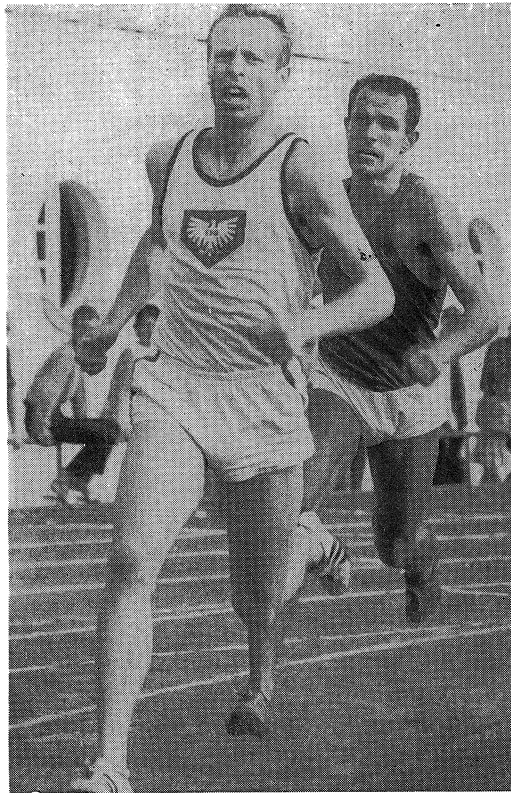
Invariably, unexpected or uncontrollable factors have an effect on performance. They may be objective: climatic (temperature has a marked effect), the results of the draw, the track (in Tokyo the running track had eight lanes instead of six), or subjective: physical indisposition, bad news from home, professional jealousy (especially among gymnasts), a sense of responsibility towards club or country, causing tension. Research on Czechoslovak top sprinters has shown that negative psychic experiences cause a reduction in speed.

In connection with team games, Dr. Stránský, himself, has done research into the influence of initial failure on the course of the game, into superstition (this still has a surprising hold on some players—colour and number of jerseys, putting the right foot on to the ice first etc.) defeatist moods, the nomination of representatives and assessment of performances. The theory of games is being developed. The cybernetical theory of information about one's rivals is used—and its application in tactics and the development of tactical thinking in players. The social psychology of sports groups (school, youth, and works teams etc.) is investigated. Interpersonal relations—between player and trainer, member and captain—are one of the main factors in performance.

Dr. Stránský emphasised that the psychology of sport is relatively young in this country but that the conviction is growing of the vital necessity of psychological training in competitive sport and sport for individual recreation.



Fearlessness and the ability to take risks are developed by some sports.



Will-power is an essential attribute for sportsmen. Jan Ctvrtěčka, second in the photo, finished first.



Battle of the



BULGIES

by Lieko Zachovalová
Photos by Oldřich Karásek and Josef Kosář

Just before Christmas, the newspapers, radio and TV put a little bit of a damper on our seasonal gaiety by spreading disquietening news about the increasing obesity of the Czechoslovak people. The Health Committee of the National Assembly was responsible for injecting this rather gloomy note into the Christmas festivities. In its discussion on nutrition in Czechoslovakia, the Vice-President of the Czechoslovak Academy of Sciences, the well-known biologist Ivan Málek, and Professor Josef Mašek, Director of the Institute of Human Nutrition in Prague, had a great deal to say about what we habitually eat here.

On an average, all of us—infants and grandfathers—carry around with us nearly six kilograms in excess weight. Daily caloric intake averages out at 3,134 calories per head, from eating too much starch, sugar and animal fats. On an average again, everyone in Czechoslovakia consumes 58.6 kilograms of meat in a year (1962), half of it pork, 38.3 kilos of sugar and about 120 kilos of flour, mainly wheat-flour. No wonder, when roast pork with sauerkraut and wheat-flour dumplings, or heavily sugared fruit dumplings over which melted butter is poured, are favourite meals. By the way, the latter is not a dessert, but a main course. The result of this kind of diet—besides putting on weight—is also a general deficiency of vitamins A and C. We are easy meat for the influenza virus, and the mortality rate from heart attacks is also rather high. The amount of body fat with the average Czechoslovak citizen exceeds the normal international level by between 8 and 10 per cent.

It might have had a greater impact from the point of view of health education if the dieticians and the deputies of the National Assembly had bided their time until the first days of the New Year, when the pangs of indigestion, more or less inevitable after a surfeit of fat Christmas goose, French salads swimming in

mayonnaise, and so on, were still fresh in people's minds and chastened spirits were prepared to toy with New Year resolutions to eat less and take more exercise.

Certainly, nobody wants to go back to the meagre diets (2,545 calories a day in 1936) of the pre-war years, when Czechoslovakia lagged far behind France, England and Germany. But it is not just a matter of calories but also of healthy, rational nutrition. Those six kilograms of excess weight represent 600,000 tons of grain a year. Just imagine how many beefsteaks on the hoof could be fed with that quantity, especially when one considers that cattle need only half the amount of grain that has to be fed to pigs. Anyhow, pigs are also too fat in Czechoslovakia... If we cut down our consumption of sugar to a reasonable, healthy level, we could save about 150,000—190,000 tons of sugar a year. We could then grow something dietetically more valuable on the acres freed of sugar-beet!

"Black bread must be restored to its former place of honour," stormed Academician Málek, enthusiastically backed up by Professor Mašek. That was a day on which a nice, fresh "wind of change" began to blow away some of our moth-eaten ideas about agriculture, and on our food imports policy as well.

A few weeks later, we got the news that a new kind of bread was to be added to the ten varieties already on sale. It consists of wheat-flour and rye-flour in equal proportions and is confidently expected to become the most popular bread on the market because it is nice and porous.

"What does this mean?" our health-conscious reporter Lieko Zachovalová asked. "Isn't it just another step in the wrong direction, when the ordinary bread in Bohemia and Moravia now is 60 per cent rye and 40 per cent wheat?" She went to see Professor Mašek at the Institute of Human Nutrition. While there she took the opportunity to have a look around the Institute.

Professor Mašek turned out to be quite satisfied with the new kind of bread. He explained, that, for the sake of putting a halt to the present trend, a minor compromise is well worth while. It is a very disquieting fact that the white roll seems nowadays to be gaining ground in public favour over "a proper slice of bread". And it is of no great consequence what proportion of wheat-flour a loaf of bread contains. What is really important is whether the vitamins and other nutritive elements contained in the grain husk are preserved in the course of milling.

Everything looks rather different if you take the trouble to inquire deeply into it. That is what the Institute of Human Nutrition does all the time, and what its research workers discover serves as a basis for what we might call a "nutrition policy". Such a policy is an inseparable element in the concern which society shows for the health of its citizens.

"The document on the development of the health services does not consider prob-

