Basic principles of restorative therapy of speech in aphasia

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Among the various consequences of strokes or traumas aphasic disorders occupy a prominent place. As is known, the rehabilitation of the higher cortical functions, in particular of speech, does not always develop in a spontaneous way - simultaneously with a general improvement of the patient's state, and parallely with the rehabilitation of movements. In many cases only the application of pedagogical and logopedic methods of purposeful treatment and of special exercises maket it possible to overcome the speech disorders and helps the patients to get rid - to some degree or other of then grave suffering.

Already the experience of the first world war showed that special rehabilitative work must be done with patients suffering from aphasia (K. Goldstein). A number of authors who generalized the practice of speech rehabilitation after brain traumas during the second world was have come to the same conclusion (Ananiev, Kogan, Luria, Wepman, Granish, Zangwill and others). The passive attitude of these neurologists and psychologists who confine themselves to stating the presence or absence of spontaneous rehabilitation of speech in aphasic patient, is now being gradually superseded by effective and purposeful efforts to exert a definite action on the patient. With the development and perfection of such action, the pessimistic views of some neurologists on the possibility of rehabilitating the speech of aphasic patients are giving way to positive appraisals of the results

of special work with such patients.

Of definite significance for the results of spontaneous and purposeful rehabilitation is the etiology of the suffering which determines the peculiar features of the disease - its clinic and course. Thus, a confrontation of the persistence of aphasias of vascular and traumatic origin shows that the percentage of aphasias of a transient character in the initial period is considerably greater than in the case of traumatic aphasias. Apparently, the persistence of speech disorders after strokes may be explained by an older age of the patients in comparison with speech disorders resulting from war traumas of the brain, as well as by the diffuse character of the atherosclerotic process.

Special investigations (Stolyarov, 1962; Tonkonogi, 1964, 1965) * showed that the dynamics of aphasia of vascular origin is connected with the character of the disturbance of cerebral circulation which determines not only the form of aphasia, but also the degree of its gravity and the dynamics of rehabilitation. The following factors play a decisive role: a complex or incomplete exclusion of the blood circulation, the peculiar features of the collateral blood circulation, the location of the focus of lesion. As well as the acute and violent character of the vascular process. However, even in patients with aphasia resulting from disturbances of the cerebral circulation it proves possible in 74% of all cases to obtain positive changes of different degrees - from a partial improvement of certain as-

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* Peculiar features of the clinic of aphasias of traumatological and tumourous origin. See A.R.Luria (1947). M. Botez (1962).

pects of the speech function (reading, writing, aural perception of the speech of other people, articulatory differentiation of the composition of words, etc.) to a considerable rehabilitation of all speech aspects and possibility of oral and written intercourse in the presence of some residual disturbances (E.S.Bein, 1964).

Whatever the character of the speech disorder in adult aphasic patients may be, it always presents a disintegration of the already developed speech function. This determines not only the structure of the speech disorder (in particular, the character of the dissociations its dependence on the premorbid level of the patient), but also the methods of the restorative therapy.

Theoretical and organisational principles of restorative therapy

The intricate character of the speech disorders determines the necessity to secure a complex treatment of aphasic patients. The important role of psychological analysis in the development of the theory of aphasia is well-known. The study of the psychological laws of speech (in ontogenesis including) is of great importance for the elaboration of effective methods of rehabilitation. The successful utilisation of psychological analysis of the structure of thought, vocabulary and grammatical system of speech for diagnostic purposes, as well as for eliminating various forms of aphasic disorders was already often described in the literature. At the same time the knowledge of the laws which govern the structure and development of the language (linguistic data)

prove to be also highly important for the analysis of speech disorders and elaboration of a corresponding system of restorative treatment. As to the neurological aspect of the problem of rehabilitation, it concerns the peculiar features of the localisation of the brain lesions, the character of the pathological process, the size of the focus of lesion and the state of the neurodynamic processes which are caused by the presence of the focus of lesion in the brain.

If, besides we take into account the frequently observed psychopathological features of the patient's personality and the importance of a psychotherapeutic approach to such patients, the role of psychiatry in this field will also become quite clear. In view of this, it is now generally recognized that the organisation of rehobilitative work with aphasic patients inevitably necessitates the cooperation of a member of specialists. One of the most essential roles of this field isb played by the speech therapist who chooses the proper methodical principle of the rehabilitative process on the basis of a preliminary thorough psychological analysis of the structure of the speech defect.

Thus, the participation of a number of specialists, which secures proper diagnostics of the speech disorder and the choice of corresponding methods of rehabilitative work, constitute the indispensable organizational principle of treating aphasic patients.

Among other questions which require a definite organisational soluting is the duration of the restorative therapeutic course. The practice of many authors (Bein, 1959, 1964; Schuell, 1953, 1964) shows that a long course of restorative therapy

is required and that it must be started at an early stage of the disease. All other things being equal, the results of speech rehabilitation in aphasics depend on the time when the rehabilitative work begins. If it begins in the first months, or - which is still better - in the first weeks after the emergence of the brain lesion, the effectiveness of the restorative therapy proves to be greater. Apparently, such an early start prevents the development and fixation of pathological symptoms as well as of different undesirable adaptive phenomena, and directs the process of rehabilitation along a possibly more expedient path, i.e., plays a prophylactic role. Thus, an "encounter" of two lines of rehabilitation - spontaneous and directed from the outside - is desirable precisely at the initial stage.

It is expedient to hospitalize the patients repeatedly - three or four times - or to practise subsequent ambulatorial exercises. In most cases positive results are achieved only when the entire course of restorative therapy lasts from one to two years. Repeated cycles of rehabilitative training carried out at intervals of 1 to 3 secure a contain success of restorative therapy in most cases of mild, moderate and sometimes grave speech disorders. The significance of the afore-mentioned intervals can be appreciated in the light of the "starting" role of therapy which was mentioned by many authors. All this makes it necessary to create, along with a network of ambulatory clinics for complex treatment of aphasic patients, special establishments - stationary clinics. It should be emphasized that labour therapy is an indispensable element entering the whole complex of rehabilitatioh of aphasic patients.

The restorative treatment of aphasics, its methods and

ways are closely bound up with the localizational concepts and theories of aphasic disorders. When choosing a certain way of restorative therapy, it is necessary to take into consideration a tendency which is common to the modern theory of aphasia, namely, the tendency to refuse from a static interpretation of the aphasic disorders which is inevitably connected with the narrow localizational approach to the cerebral organization of the speech function. At the same time an extended "integral" approach to the localization of speech disorders in aphasia and an insufficient realization of the systemic nature of these disorders and of the role which the exclusion of certain analysers plays in the picture of speech disorders lead to an underestimation of the importance to differentiate the methods of speech rehabilitation in aphasia depending on the form of the speech disorder. At the same time the significance of the technique and methods of rehabilitating definite aspects of speech is disregarded.

Meanwhile, the problem of the methods of restorative therapy is of prime importance. An analysis shows that different methods have a different compensatory basis and produce a different final rehabilitative effect. The so-called direct methods of disinhibition and partially of stimulation contribute to a genuine functional recovery due to the emergence of the nerve cells from the state of inhibition in the case when the disorder has a neurodynamic basis. As to the methods of a round about, compensatory character, they are much more indicated in the case of an organic lesion, when the recovery of the function proves possible rather in a modified, intermediated form. Such a function is realized in another way and on the basis of other functional structures. In this case it proves almost impossible to achieve

a complete automation of the rehabilitated function. Thus, in organic lesions we observe only a certain rehabilitative effect on the basic of compensation, but we do not observe a real rehabilitation.

These theoretical propositions are of great practical significance, since they determine the choice of concrete methods of rehabilitative work. Characteristic of an early initial stage is the mechanism of disinhibition of the temporarily suppressed speech functions and their involvement into activity. At later stages, when the speech disorder assumes the character of a stable, developed syndrome (form) of aphasia, the rehabilitative process essentially consists in a compensatory reorganization of the organically deranged functions, utilization of the intact psychical aspects, as well as stimulation of the development of intact elements in the analysers. This is why the significance of the stage-by-stage principle of restorative therapy lies in the necessity to take into account the specific features of compensation peculiar to different dynamic ctages. Accordingly, the methods of work at separate stages must not be the same. This difference relates to the role which must be played by the round about. Compensatory methods which reconstruct the defective function and which are based on the intact psychical aspects, and by the direct method of disinhibition and stimulation

of the defective function.*

Of course, it is not always possible to delimit the compensatory basis of a separate concrete method, but one must strive to achieve this aim.

Many specialists emphasize the integrational essence of speech rehabilitation in aphasias. This means that in restorative therapy - to a considerably greator means that in restorative therapy degree then in the pedagogics of normal childhood - it is not the direct "specific effect" of the treatment which is of importance, but the much more general, i.e., integrational effect. As is known, there is no direct dependence in time between the method which has been prompted to the patient and the possibility to realize the defective function. Several weeks and even months may be spent on the assimilation of the first sounds or words, after which the rehabilitation proceeds more rapidly - there takes place a process of integration. This find its expression in the "starting" character of the directed rehabilitative process. In contradistinction to the pedagogics of

* When considering the disinhibitory therapeutic methods one must not overlook the significance of medicamental therapy. On the basis of an experimental study of aphasic patients, n.a. k ryshova and her co-workers (1959, 1960) described the role of stimulants in the mobilization of cortical activity. Electrographic investigations demonstrated that 30 mimutes after the administration of glutamic acid, caffeine, ginseng or other preparations of this kind the latent period of uttering sounds and words as well as the time of the word-utterance itself decreased. The authors emphasize the necessity of an individual selection of the doses and of the medicinal preparation. Of definite importance for the recovery of synaptic conductivity are also anticholerestin preparations.

childhood or to the process of teaching a foreign language in the course of rehabilitating letters of the alphabet, sounds of speech verbal concepts or phraseological units there is no need to work with the help of one of the methods (direct or round about substitutive or reconstructive on all the sounds and letters of speech or on "all" the verbal concepts of a certain category. Usually it proves sufficient to evoke in the patient with the help of the method of reorganization or stimulation separate elements of the speech function and the patient's speech becomes enriched in a "spontaneous way". The fact that the patient repeats a concrete word or phrase, or even uses them in an adequate situation is less important from this point of view than when under the influence of a certain stimulation or method of recognization he begins to use non-stimulated words, phrases or fragments of speech. The present-day concepts of neurophysiology and neuropsychology concerning the dynamic and systemic localization of functions, and the systemic structure of the psychological functions, as well as the approach to the "centre" of speech as to a broad dynamic and systemic brain formation (I.P.Pavlov, 1949, 1954; A.A.Ukhtomsky, 1951; P.K.Anokhin, 1956; A.R.Luria, 1947, 1962) explain the integrational effect of restorative therapy. The propositions that the effect of restorative therapy bears a general, just as a specific character, that of great importance in this respect is the "transfer" of the process of generalization, may be corroborated by a number of examples. One of such examples is the process of rehabilitating. The vocabulary of aphasic patients. The basic factor of this process, along with an extension of the semantic "multi-voluminousness" of a separate

word, or, on the contrary, a curtaiement of the limits of the word meanings is that whole systems or "nests" of different verbal chains become rehabilitated. Such utilization of generalized linguistic categories is widely practised in the process of rehabilitating different aspects of speech in aphasic patients, in particular, in the process rehabilitating their stock of words (v.m.Kogan, 1962). This is one of the examples which show how the rehabilitative mechanisms of the brain ensure a "transfer of the generalization process".

The essence of the "round about" methods with their substitutive adoptive and compensatory nature consists above all in the fact that the function, previously realized on the basis of one analyser (for example, the auditory analyser), begins to act with the participation of other analysing mechanisms which previously did not play any decisive role (optic, tactile and others). However, the essence of the roubdabout methods is not confined to such substitution. The so-called functional reorganization exceeds the limits of mere substitution. The rehabilitative significance of the methods of substitution must not be overestimated. Moreover, as long as there takes place a process of substitution alone the "roundabout way" itself, the possibility to realize the function, often bears only a temporary character. Elaboration of the ability to read by way of outlining the letters kinesthetically - "reading through writing" - is an example of the aforesaid. It is a well known fact that on this basis (outlining of letters) the process of reading proper cannot be rehabilitated. It proves only possible to obtain a momentary "specific effect" in respect of recognizing concrete letters or words.

Such methods, apparently, do not contribute to the creation of conditions which are necessary for a "transfer", for the patient's assimilation of the method prompted. The temporary character of the rehabilitative effect achieved with their help is due to the fact that there takes place no reorganization of the defective function itself. We have every reason to assume that the easiness with which the residual motor mechanism of writing proves to be included, without any conscious efforts on the part of the patient leads only to a substitutive effect. Meanwhile, the rehabilitation of the process of writing or reading by way of a conscious analysis of the letters as graphemes, as well as by an optic generalization of the phonemes and by watching the consecutive phonetic verbal chain (on the basis of a phonetic analysis) produces a more stable effect of rehabilitation of these processes. A highly essential role is played also by the systemic relationships which are formed between separate aspects of the speech system in ontogenesis of the speech function. There is no doubt that the phonematic aspect of speech is systematically more closely (organically) connected with the processes of writing and reading than the kinesthetic aspect, Owing to this, when it serves as a support in the course of restorative therapy, the rehabilitative effect proves to be of a stable and integrated character.

At the same time the "support", or the additional afferentation, does not mean a mere inclusion of the intact analyser as it is erroneously stated by some authors. In reality - and this must be particularly emphasized - we have here a factor stimulating the development of the intact function as a basis for reconstruction of the defective one. Thus, the compensatory development of intact mechanisms is not merely an "inclusion" of what has remained intact. Actually it means special deve-

lopment of the intact mechanisms and gradual accumulation of the possibility to utilize them for exercising the defective function.

In other words, two processes develop, as it were. parallelly in the course of directed rehabilitation, namely a reconstruction of the defective function and purposeful development of the intact function.

It is in these conditions of gradual development that the transfer, or generalization of the method prompted from the outside, takes place.

It should be also pointed out that the directed process of rehabilitation is not by itself a teaching process in the direct sense of the word.

Some authors (Schuell, 1964 and others) insist that the rehabilitation of speech in aphasic should be regarded above all as stimulative therapy, and not as therapy through teaching. Hence, it is difficult elaborate methodological programmes and it is necessary to ensure strict individualization * of the rehabilitation work (with due regard to the peculiarities of the speech disorders, of the patient's personality, his interests, requirements, etc.) which turns any programme of work with a patient suffering from some form of aphasia or other only into a general scheme. This scheme is based on certain basic principles which were approved by various investigators.

Methodological foundations of the therapy of speech rehabilitation in aphasia

1. The choice and organisation of a definite method of

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* The importance of individualization does not exclude the necessity to practise group lessons for the purpose of developing the possibility of the patients' social intercourse.

restorative therapy must be based on the stage-by-stage principle.

2. The semantic content of the speech function serves as a support in all forms of aphasia.

3. The rehabilitative work must cover all the aspects of speech, no matter which of them proves to be primarily deranged.

4. The methods of restorative therapy must be differentiated according to the forms of the aphasic disorders.

The first of the afore-mentioned propositions, which concerns the stage-by-stage principle of restorative therapy of speech in aphasia, results from an analysis of various (improvements of the speech functions observed at the initial and later stages of the dynamics of speech disorders (see above). A thorough study of such dynamics (beginning with the initial stage of an acute stroke) showed that at separate stages its compensating essence proves to be different.

The stage-by-stage principle of organisation of speech rehabilitation in aphasia relates not only to the different content of the logopedic methods to be applied; it means also that the different degrees of the patients' conscious participation in the rehabilitative process must be taken into account. Likewise dissimilar is the role of methodological differentiation with regard to the form of aphasia. It is considerably lesser at the initial stage which follows the stroke or trauma. In this case it is the involuntary speech processes which must serve as a "support" (habitual speech stereotypes, emotionally significant words, songs, verse, etc.). It is necessary to utilize various direct methods of stimulation and disinhibition which contribute to the alimination of inhibitory phenomena.

A general feature of the methods which are applied at an early stage are their prophylactic character. They are aimed at rehabilitating all aspects of the deranged speech, in the main with the patient's passive participation in this process. On their basis, it proves possible to prevent the emergence and fixation of some pathological speech symptoms, as well as to activate the rehabilitation of the speech functions in patients with different forms of aphasia (Shokhor-Trotskaya).

Finally, at an early stage foundations are laid down for preventing various forms of agrammatism and some other symptoms of speech pathology (E.S.Beyn, M.K.Shokhor-Trotskaya, 1968).

Quite promising in this respect is therefore the "preventive method of restorative therapy" which is now being elaborated in the Institute of Neurology of the U.S.S.R. Academy of Medical Sciences. Its essence consists in exerting timely influence on the main line of the speech disorder, on the reconstruction of its pre-condition at an early stage of development when certain pathological symptoms do not yet manifest themselves. This makes it possible to prevent their emergence in the process of rehabilitation.

It is hardly necessary to emphasize here that. At an early stage the rehabilitative work with aphasic patients must bear a particularly cautious, psychotherapeutic character.

At subsequent stages (1.5 to 3 months after the stroke) when the syndrome (form) of aphasia establishes itself and becomes stable, it is advisable to apply not only methods stimulating the general development of speech, but also these which contribute deranged to a reconstruction of the speech function.

The organisation of rehabilitative training at the second

stage of development of the aphasic syndromes insistently requires that the restorative therapy should be based on a profound psychological analysis of the character of the disorders, as well as of the actual correlations between their separate aspects.

As already stated above, this stage differs from on early one by a considerably greater differentiation of the methods applied depending on the violated main pre-condition of the given form of aphasia.

Organisation of the rehabilitative process on a conscious level is one of the characteristic features of work at the stage of a stable aphasic syndrome.

The utilization of the semantic aspect of speech as a "support" (the second principle of restorative therapy) is of particular methological importance in the process of speech rehabilitation. It constitutes the basic link of the reconstruction processes in all forms of aphasia, in disturbances of any analyser. The entire strength of the semantic aspect of speech should be utilized not only for rehabilitating verbal concepts or the grammatical system of speech, but also for rehabilitating the acoustico-gnostic processes, disturbances of the so-called phonematic hearing, and many other disturbances which are peculiar to aphasia.

Complex work on speech as a whole must be practised in aphasia (the 3rd principle) which always presents a syndromological disorder affecting all the aspects of the human speech system. Primary symptoms, which directly result from derangements of certain pre-conditions of speech, are inevitably followed by secondary symptoms. In view of this, restorative therapy must pay attention not only to the primarily deranged

link, but to all aspects of the patient's speech. Thus, in all forms of aphasia it is necessary to work on the phonetic analysis and synthesis of the word-composition, on reading and writing, as well as on rehabilitating the generalisation of verbal concepts, the grammatical system of speech, etc.

The fourth principle (Differentiation of the methods of speech rehabilitation in different forms of aphasia) is likewise based on the conception of the systemic structure of aphasia syndromes which are caused by some deranged precondition, or by some primary symptom. The rehabilitation of phonematic differentiation in sensory aphasia may serve as an example of the "roundabout" and at the same time differentiated methods of reorganisation of the speech function and of its realisation by other mechanisms (E.S.Beyn, 1947, 1964). According to these methods, defective auditory discrimination is compensated by way of utilizing the intact optic, tactile, and - which is particularly important - significative differentiation. In sensory aphasia (with its characteristic derangement of the complex analysis and synthesis of the sounds of speech and words) particular attention must be paid to rehabilitating a differentiated perception of speech with the help of the intact analysers (optic and motor-kinesthetic) and with the use of letters.

At the initial stage of this work (especially in grave cases) it is necessary to attract, concentrate and fix the patient's attention on the concrete meanings of the words. The aim of this stage is to teach the patient to differentiate simple words and phrases according to their different phonetic and rhythmic pattern, different length, etc. (for

example, the patient must differentiate on pictures such words as "cat - picture, gun - staircase, desk - airplane", or understand such instructions as "give me the hand", "stand up", etc.) When it proves to same degree possible to attract the patient's attention, to the phonation of words, lettres are introduced. The patient learns to single out words and separate sounds from the phonation which is to him quite indistinct. Gradually words with a similar phonetic pattern, but with different first sounds are introduced (for example, "cat - rat") or, on the contrary, words having the same first sounds, but a different phonetic pattern (such as "door - dancing"). Such words are not only aurally comprehended by the patients; the are formed by the patients of cut - out letters of the alphabet, written down and read aloud.

The next stage presents a transition to a more delicate differentiation of words which have a similar phonetic pattern and which are close as regards the phonation of their first sounds (such as "dear - tear").

Thus, the patient's attention is drawn to the fact that words of a similar phonation may have different meanings. He begins to detect and single out the attributes of sounds (hard - soft, voiceless - voiced) inaccessible to him and whose presence or absence change the meaning of the word. This kind of work with patients suffering from sensory aphasia contributes to the rehabilitation of the constancy of their speech perception; comprehension of speech of other people, as well as reading, writing, etc. become improved. The words acquire stable meanings in spite of the changing forms.

Thus, first of all the globality and inconstancy of the

aural perception of speech proves to be eliminated and an intermediating object - significative foundation is created. The patient becomes conscious of the phonation of speech, and there arises the possibility of self-control, which is extremely important for the normalization of the secondarily deranged semantic word structure and of the dynamics of the thinking activity of sensory aphasies.

Elaboration of the need to find an adequate phonetic word structure, curtailment of the of "external searc" (uttering words in the course of oral speech and reading, graphical searching in the process of writing), i.e. conversion of the searching situation into an internal one already signifies a relatively high level of speech rehabilitation in a sensory aphasic.

In this connection, one more essential methodological proposition must be emphasized. It is the necessity to utilize in the process of rehabilitating any speech function an extensive system of external materialized means as a support, so that subsequently a "growing in" could take place. As a result of this gradual curtailment of the external support, the action begins already to assume the character of a "mental action".

This approach has been recently particularly developed by A.R.Luria jointly with L.S.Tsvetkova (1965). For example, in the process of rehabilitating grammar they at first present the grammatical relationships in the shape of graphic schemes, and the latter only gradually turn into inner rules of word combination in the sentence. At the initial stages the patient uses such external schemes as a support for expressing his ideas.

Of a similar character is any other system of work which utilizes the compensatory way of rehabilitation accompanied by a gradual curtailment of the external support; for example, rehabilitation of the ability of voluntary formulation in some forms of motor aphasia (so-called, conductive forms) by way of using as a support the patient's inner speech and its development. Actually, the some relates to the rehabilitation of the ability to read and to write relying on a gradually developing phonetic analysis of the sequence of a phonetic chain. The same principle underlies the elimination of amnestic difficulties of naming objects, by way of a transition from the use of a phraseological context prompted from the outside to the ability of uttering the sentence "silently" with the aim to actualize the necessary word.

One more essential methodological proposition of the restorative therapy is the necessity to apply at all stages and in all forms of aphasia intensive sensory speech stimulation in order to mobilize the reserve abilities of the systems of analyses. Although the role of all kinds of stimulations as supports is highly essential, still it is the stimulation of speech aural which proves to be most essential (Schuell, Bean, 1964) "Stimulation of speech aurally" signifies a system of tasks which are presented aurally and which teach the patient to grasp words and sentences of different length complexity and content. It also includes the possible accomplishment by the patient of instructions given to him aurally. This allows to elaborate a set for the aural perception of speech. At the same time it is very important to make the

patient - as much as it is within his powers - pronounce: words, name objects and listen to his own speech* , i.e., to ensure a "feed-back" in the process of stimulation.

In all forms of aphasia it is necessary to pay attention to the rehabilitation of two basic aspects of speech - communicative and indicative. The work of rehabilitating the communicative property, which is of particular importance in some forms of motor aphasia**, must include diverse methods of developing the dynamic aspect of the act of speech and of the inner structure of words and sentences. The following methods are of definite help in this respect: application of graphic and optic schemes of the structure of sentences, active formation of sentences on the basis of pictures dramatization by means of gestures, designation by the patient of his own actions, filling in the missing sounds in words, or of the missing words (mainly, verbs) in sentences, formation of sentences by using certain words as "supports", etc.

The methods of developing the indicative property of speech, or in other words, the patient's struggle with his own amnestic disorders consists in rehabilitating the connection between the

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* For this purpose it is advisable to practise tape recording of the patient's own speech.

** The work of rehabilitating the articulations and their combinations is important only in the case of apraxia of the articulatory apparatus. Limited importance is imparted to it when the complex nature of so-called motor aphasia (which includes disturbances of the inner speech, of the visual concepts, as well as of the dynamics of the act of speech, etc.) becomes gradually clarified.

visual and verbal concepts, which often prove to be violated in aphasia, in extending (and sometimes narrowing) the limits of the verbal concepts and in their systematization. For this purpose, a concrete concept is exercised in various phraseological contexts. It is filled with different connections and different contents, owing to which the word oversteps the bounds of limited concrete situations. This helps to rehabilitate the generalization hidden behind the word which provides a foundation for the development of the indicative function of speech, of its lexical aspect.

Conclusions

Restorative therapy of speech, which is based on the concept of the psychological essence of all aphasie forms, with due regard for the character of the speech disorders at different stages of its development, ensures the best possible conditions for the rehabilitation of the speech functions. This is undoubtedly due to the fact that in these conditions the "starting" role of the directed rehabilitative process is realized most completely.

At an early stage it allows to increase to rate of the spontaneous dynamics, to achieve a possibly fuller disinhibition of the speech functions and to prevent a number of pathological symptoms.

At a late stage, when the organic lesion comes to the fore, the directed rehabilitation process not only stimulates the development of the speech function, but also contributes to the reorganization of its defective aspects with the help of roundabout rehabilitative methods, The value of these methods is very great, since they ensure a stable realization of the function, even though in a modified, intermediated shape.

The significance of mobilizing the patient's motivation and his own activity for eliminating the speech disorders, must not be overestimated. One of the indispensable conditions, which contribute to the effectiveness of the restorative therapy, is the necessity constantly to emphasize the patient's success. No standartization in the choice of the methods of work is admissible. Another obligatory condition for elaborating an effective programme of restorative therapy is the necessity to take into account the individual features of the aphasic disorder in the entire complexity of its structure.