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## **Logopedic Treatment. Diagnosis, Programming of Therapy, and Therapy**

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**Postępowanie logopedyczne. Diagnoza, programowanie  
terapii, terapia**

We shall define the standard of logopedic treatment as the model system of procedures used in the therapy of a particular speech disorder, which are so devised that the treatment is effective.

It is certain that this model system of therapeutic procedures must take at least two components of knowledge into consideration:

- scientific knowledge about human behavior in the state of disturbed functioning which is of interest for the creator of the standard and,
- knowledge established in logopedic practice — the result of several-generation experience of logopedists in the treatment of people in need of help.

It should be noted at this point that the two stores of knowledge are not entirely compatible. Each therapeutic treatment of a patient is burdened with inertia accumulated in the procedures applied in practice for years or centuries (for example in the treatment of stuttering). This leads to routine, which limits the practitioner's creativity and consolidates and preserves the gap between scientific thought and practical treatment. Consequently, we can easily agree with the opinion that logopedic practice is left far behind the achievements in biological sciences, especially in neurobiology and communication theory. It was the intention of the team which presents the present standards to fill this gap at least partially.

I therefore treat the standards of logopedic treatment as models, rational systems of therapeutic procedures, which (the systems) always have to be

adjusted in practice to the capabilities of a person in therapy and to the degree of intensity of undesirable behaviors.

The efficacy of logopedic treatment is the outcome of many components of therapeutic process. First of all, it depends on the logopedist's knowledge and commitment and on the capacities and motivation of the person suffering from a speech disorder. Standards will only put the knowledge in order. They will suggest how the logopedist should diagnose individual cases, program a therapy, organize its stages and document its course.

These three procedures, I believe, define the logopedist's scope of activity because he is to diagnose speech disorders, program a therapy, and carry it out.

## PROCEDURES OF LOGOPEDIC TREATMENT

The problem of procedures of logopedic treatment requires greater reflection. Logopedic treatment is sometimes believed to be determined by a system of the following concepts: prophylaxis, diagnosis, and therapy<sup>1</sup>. This system lacks, without doubt, "programming of therapy" as an autonomous component of treatment, which determines the goals and adjusts methods to them. It is this stage that requires the logopedist's greatest intellectual effort in order to coherently combine into a single whole the knowledge of the patient's capacities, knowledge of methods of treatment for a disorder, and reflection on the partial objectives of therapy.

Programming of therapy should free the logopedist from the intuitive attitude, unfortunately found in practice, and contained for example in the too often used formula, "... when you work with a person, you can always do something...". The point is, however, that each step of logopedic treatment should be a purposeful operation.

When asked what logopedic prophylaxis is, I cannot find a satisfactory answer.

If it is merely the propagation of knowledge on speech disorders, then it is pointless to regard it as a treatment procedure on an equal footing with diagnosis and therapy. All activities relating to the biological condition of the fetus ("do not drink during pregnancy", "do not smoke cigarettes", "avoid infections", "be careful with medicines") cannot possibly be classified as logopedic prophylaxis. They are the rules of hygiene of social life.

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<sup>1</sup> E. Słodownik-Rycaj, *System opieki logopedycznej w Polsce i Anglii* [System of logopedic care in Poland and England], Warszawa 2007, G. Jastrzębowska, *Stan i perspektywy opieki logopedycznej w Polsce* [The state and prospects of logopedic care in Poland], [in:] *Logopedia. Pytania i odpowiedzi. Podręcznik akademicki*, (eds.) T. Galkowski, G. Jastrzębowska, Opole 1999, s. 219-232.

Logopedics has, however, its own specific mission to accomplish. Unfortunately, speech disorders always make it impossible for a person, to a greater or lesser extent, to take part in social life, whereas the logopedist, by constructing language in the person's mind or improving communication, becomes a guide on the road to the individual's return to a community. Logopedic prophylaxis should be, I believe, associated with building the knowledge of speech disorders and possibilities of therapy in the social consciousness. This is, however, the general aim of the logopedist's activities, which follows from the essence of his profession.

I propose the following scheme of the standard:

### I. Diagnosis:

Description:

#### 1. Examination of Interaction Skills:

- motor activity,
- articulation,
- language,
- conceptual structures,
- dialogue realization,
- realization of narrative utterances.

Interpretation:

#### 2. Analysis of Results of Specialist Examinations.

#### 3. Family History.

#### 4. Differential Diagnosis.

#### 5. Recognition of a Case.

### II. Programming of Therapy. Program Framework:

#### 1. Aims of Logopedic Treatment.

#### 2. Strategies and Methods of Treatment.

#### 3. Organization of Treatment.

### III. Therapeutic Treatment:

#### 1. Organization of Therapy Stages and Their Assessments. Choice of Means and Aids.

#### 2. Keeping Documentation.

#### 3. Verification of Diagnostic Hypotheses and Modification of the Program.

This scheme became the model of proposals contained in the present issue of "Logopedia". It had, nevertheless to be creatively modified by the authors of individual standards.

The procedures of logopedic treatment (diagnosis, programming, and therapy) provoke broader reflection, closely related to the object of logopedic

research and the ways of identifying particular speech disorders. Problems arise immediately when we attempt to answer the question: what does the logopedist diagnose?

Logopedics, both in scientific reflection and in popular consciousness, is regarded as a science of speech disorders. And this is where general agreement essentially ends, because it is quite a problem to define its scope of research fairly precisely. The range of phenomena that appear in this field is vast and its segmentation is diversified in various ways: speech disorders have their biological dimension since all causes of these disorders lie in the dysfunctions of brain activity and peripheral biological functions. Brain injuries and dysfunctions translate into the course of mental activities and always into the sphere of social life.

Analysis of the causes of speech disorders remained in the sphere of medical sciences for centuries, and recently it became the province of neurobiology. The task of describing their symptoms was assigned to linguistics equipped with the tools for determining agrammatism and articulatory correctness. In the system of these disciplines logopedics easily defines its own research area singled out by cognitive sciences and sociolinguistics.

At some time I proposed the following definition of speech, which clearly defines the scope of logopedic activity. I define speech as a system of activities that man performs with the use of language when getting to know the world and imparting the knowledge of himself and the world to other participants in social life<sup>2</sup>. A consequence of adopting this interpretation is the theses that broaden the scope of logopedic diagnosis because language leads directly to the human mind: man's cognitive capacity, emotions and wants. Linguistic behaviors also permit us to assess human activity by describing the possibilities of communication and the way an individual exists in a social group.

## LANGUAGE IN LOGOPEDIC DIAGNOSIS

Here are the formulas of theses essential for logopedics:

1. Language is a path that leads to man's cognitive activities: his store of knowledge of himself and the world, the structure of this knowledge in the mind and the way it is used in interaction.

2. Language is a path that leads to human emotions and wants. By studying the communication about ourselves and the world, we are able to

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<sup>2</sup> For more on the subject see S. Grabias, *Perspektywy opisu zaburzeń mowy* [*Perspectives of description of speech disorders*], [in:] *Zaburzenia mowy. Mowa, teoria, praktyka* [*Speech disorders. Speech, theory, practice*], (ed.) S. Grabias, vol. 1, Lublin 2001.

express our judgment about the individual's intentions, their ordering in the mind, and about the ways of verbal and nonverbal expression of this communication.

3. Language behaviors determine and present the possibilities of man's existence in a social group. By studying these behaviors we can assess the degree of the individual's socialization.

We shall slightly broaden the scope of considerations since in scientific reflection it is the ability to find problems that counts rather than repeating popular judgments. Following the positivist postulates of scientific research I assume that diagnosis requires two kinds of research techniques. One is 'description' or recording and describing the states and behaviors of the person examined, and the other — interpretation consisting in the inclusion of the recorded states and behaviors in the perspective of knowledge which explains their essence<sup>3</sup>.

For the logopedist, language behaviors constitute the sphere of description. He should record and describe them. The field of interpretation permits the logopedist to explain the earlier described behaviors on the basis of the general knowledge of man, the knowledge constructed by specialized disciplines (e.g. medical, psychological or pedagogical knowledge) and on the basis of information provided by the (child's or adult's) guardians. This information usually verifies the recorded descriptive knowledge and helps with interpretation. The two procedures, description and interpretation, lead to a preliminary diagnosis, which allows us to assert about the condition of the mind of the person examined, about the possible damage to the brain and performative systems associated with speech and social life.

#### DIAGNOSIS OF MENTAL FUNCTIONS. THE LINGUISTIC PICTURE OF THE WORLD

In identifying cognitive capacities, especially useful is the analysis of vocabulary, the form of conceptual structures in the human mind, and the way of constructing narrative utterances.

##### 1. Lexical Skills

Language, as we know, includes the cultural segmentation of the world. Words refer to referents and determine relationships between them. In form-

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<sup>3</sup> See: S. Grabias, *Logopedia — jej przedmiot i stopień zaawansowania refleksji metanaukowej* [Logopedics — its subject and degree of advancement of metascientific reflection], [in:] *Przedmiot logopedii* [The subject of logopedics], (ed.) S. Grabias, series: *Komunikacja językowa i jej zaburzenia* [Linguistic communication and its disorders] 1, Lublin 1991.

ing mental relations, it is derivational constructions that are characterized by exceptional discreteness. We can certainly say that the individual's lexical store is an index of his knowledge of the world and a sign of understanding relations between phenomena.

A doubtless symptom of disorder is the minimization of the lexical store observable in almost all cases of speech development retardation and in the breakdown of the mind (Alzheimer's disease, aphasia), its specific orientation in the mind towards some sphere of reality (fixation in the Asperger syndrome) or reduction of the semantic structure of a word to the relation: word — referent. The word then becomes a mere label of things. This is the system — the image of sound by the lip movement referring to things — which deafness constructs in the human mind. It deprives a person of the relations between referents that are defined in language by means of derivational categories<sup>4</sup>.

## 2. Semantic Skills

All human experiences are organized into concepts by the brain. Studies on the structure of concepts show that the healthy brain organizes experiences according to the socialized pattern while the sick brain structures knowledge in its own, highly subjective way. The cognitive definition of a phenomenon obtained from the utterance on its subject shows how the person investigated organizes knowledge. It also appears that the developmental norm of organizing experiences becomes established by the age of ten.

Here are two separate structures of concepts interpreted from a child's utterance. One concerns the way of organizing knowledge about persons — the concept of grandfather (the structure developed on the basis of utterances of six-year-old children), the other is about an abstract entity — the concept of lie (based on the utterances of ten-year-old children). The material in the presented examples is only a selection of utterances illustrating the structure.

### Grandpa

1. Who is grandpa: a definitional formula ("for my Mum — Dad", "someone who is like grandma", "it is a good person"), [*dla mojej mamy tata, 'ktoś, kto jest podobny do babci, to taka osoba dobra'*].

2. What does he look like? ("looks cool", "he is so tall", "has got white hair", "he is so old"), [*wygląda fajnie, jest taki duży, ma białe włosy, jest taki stary*].

<sup>4</sup> On derivational awareness and the role of derivational categories in the mind of deaf persons, see: E. Muzyka. In her book: *Konstrukcje słowotwórcze w świadomości językowej dzieci niesłyszących [Derivational constructions in the linguistic awareness of deaf children]* series: *Komunikacja językowa i jej zaburzenia [Linguistic communication and its disorders]* — in press.



3. What is he like? ("he loves his grandchildren", "buys me all kinds of things", "likes listening to me", "he is cool", "he can't use dirty words"), [*kocha swoje wnuczki, kupuje mi różne rzeczy, lubi mnie słuchać, jest fajny, nie może mówić brzydkich wyrazów*].

4. What does he usually do?: together with grandchildren ("tells me stories", "goes walking with us"), [*opowiada mi bajki, chodzi z nami na spacer*].

Without grandchildren: ("he's got a lot things to do", "makes wooden figurines for me", "does everything I want"), [*ma bardzo dużo spraw, robi mi figurki z drzewa, robi wszystko co chce*].

5. Where does he live? ("he's got his own house, so large", "in his flat but he comes to me"). [*ma swój dom, taki duży, w swoim mieszkaniu, ale do mnie przychodzi*].

### Lie

1. What is a lie?; a definitional formula ("when we don't the truth", "when we say something wrongly", "when we say that one did something but one didn't"), [*kiedy nie mówimy prawdy, kiedy coś błędnie mówimy, kiedy mówimy, że coś zrobił, a nie zrobił*].

2. One who lies ("man", "friend", "Satan") [*człowiek, przyjaciółka, szatan*].

3. Characteristics of one who lies ("he sometimes raises his voice", "his hands sweat", "he is dishonest") [*czasami podnosi głos, pocą mu się ręce, jest nieuczciwy*].

4. reasons for lying ("because we are bad", "to be liked", "because you can't live without lies", "so that we can feel better") [*bo jesteśmy źli, żeby się podobać, bo bez kłamstwa nie da się żyć, żeby było nam lepiej*].

5. Circumstances of lying ("because someone makes us lie", "because we don't want them to feel unpleasant") [*bo ktoś nas zmusza, bo nie chcemy, żeby było mu przykro*].

6. Effects of a lie ("sorrow" "injustice", "anger", "and people don't like him", "and someone goes to prison") [*smutek, krzywda, złość, i ludzie go nie lubią, i ktoś idzie do więzienia*].

The structures of the presented concepts of 'grandpa' and 'lie' are universal. They can be easily obtained from the utterance of every child within the developmental norm. The utterances of children with brain injury or brain dysfunction reflect only certain categories of the presented structures. They are also always characterized by the poverty of linguistic means and the lack of definitional formulas<sup>5</sup>.

<sup>5</sup> Detailed studies on the subject are presented in U. Jęczeń's doctoral dissertation, "Names of emotions in the linguistic awareness of mentally handicapped children and children within intellectual norm", under preparation for press. The structures of the concepts of grandpa and lie quoted after MA theses written in my seminars.

### 3. Narrative Skills

Narrative, its structure and the way of organizing knowledge, is a testimony of a person's full mental capacity. It gives information on the ways of intellectualizing sensations (construction of references in the text to the reality perceived), on the logical or analogical organization of events (creating the narrative line), on the arrangement of events in a structural whole (narrative must begin and end somehow while chains of events should produce a culmination event, which usually complicates the narrative line). Finally, narrative shows the creative or passive attitude of the person examined towards events and their participants (this component of interpretation of the narrative, called "psychological landscape", shows the ability to enliven characters in the text)<sup>6</sup>.

Narrative is the most difficult form of human language activity because it is characterized by the closed structure with an extremely elaborate composition. For diagnostic purposes, following the studies by B. Bokus, I proposed the following systems of components of a narrative in the "Logopedic Screening Test":<sup>7</sup>

— initiation (start): the formula that starts the narrative (Once... , One day...) [*Było tak... , Pewnego razu...*],

— expositions: utterances that present a situation (The pond is frozen. Children play on ice) [*Jest zamrożony staw. Dzieci bawią się na lodzie.*],

— complication: the high-point event of the narrative (The ice broke and Jack fell into the water and started drowning) [*Lód się załamał i Jasio wpadł do wody i zaczął się topić.*],

— denouement: the way out of the complication (A man lay down [on his stomach] and passed a stick to Jack) [*Pan się położył i podał Jasiowi kij.*],

— coda: the formula that ends the narrative (And children will never step onto ice anymore) [*I dzieci już nie będą wchodziły na lód.*]

The narrative skills require that we are aware of the full structure of utterances and interactive techniques of realizing them: competent synchronization of verbal and nonverbal means. For most people suffering from speech

<sup>6</sup> See the exhaustive studies on the subject by B. Bokus and their results published especially in the books: *Tworzenie opowiadań przez dzieci: o linii i polu narracji* [Creation of narratives by children: on the narrative line and field], Kielce 1991; *Świat fabuły w narracji dziecięcej* [The world of the plot in children's narrative], Warszawa 2000. A somewhat different way of interpreting narrative utterances was presented by T. Woźniak, see *Narracja w schizofrenii* [Narrative in schizophrenia], Lublin 2005.

<sup>7</sup> S. Grabias, M. Kurkowski, T. Woźniak, *Logopedyczny test przesiewowy dla dzieci w wieku szkolnym*, [Logopedic screening test for school-age children.] Lublin 2002.



disorders a satisfactory narrative utterance is beyond their capacities. For example, the breakdown of the mind in aphasia or Alzheimer's disease totally disintegrates the narrative. It will be inaccessible to deaf persons, autistic children, and mentally handicapped persons. It poses an insurmountable difficulty for children with speech development retardation.

Consequently, diagnosis of language skills based on the examples of narratives stimulated by a picture story or descriptions stimulated by a picture, must result in a lower assessment of these skills. The ability to narrate in children within the intellectual norm appears, admittedly, already at the age of six but the ability to describe only at the age of ten.

The information that arises from analysis of the three components of language behaviors (vocabulary, structure of concepts and narrative capability) shows the picture of reality in the human mind. It allows us to determine whether a person examined remains in the socialized world explainable by means of popular notions or whether he remains in the subjectively closed world constructed within the capacities of the damaged brain (which is most clearly observable in schizophrenia, in Alzheimer's disease, and in autism).

The explication of the patient's picture of the world, obtained from his language behaviors by the logopedist, directly leads to the assessment of the individual's capacity for socialization. It allows us to ask the question: to what extent is this person able to cope in social life?

#### DIAGNOSIS OF COMMUNICATION. REALIZATION OF INTENTIONS

The act of communication is the imparting of information about oneself and the world to other participants in social life. It is always an act of revealed intentions<sup>8</sup>. The analysis of communication behaviors permits the logopedist to get to both intentions themselves and the ways of how they are realized.

##### 1. Intentions and Their Realizations

The problem of intention is extremely complicated in scientific reflection. In my proposal I start from the assumption that all wants that a person realizes through his behaviors can be reduced to the following four types: intentions to inform (I want you to know that. . . ; it is realized in speech acts that describe the reality: "This is a car", "the dog is nice"), intentions to act (I want to change a given state of affairs; it is realized in performative acts of

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<sup>8</sup> I assume that every language behavior is an intentional act and the intention of an utterance is overt or hidden in a special way but accessible to the receiver in effective acts. Non-intentional behaviors, which are the effect of biological compulsion as in autism (e.g. multiple repetitions of the same phrase) are echolalic behaviors.

the type: "We are going [let's go] to the cinema", "make some tea"), modality (realized in acts showing the reality of a phenomenon: "I am sure. . .", "I doubt that. . .", "It seems to me that. . ."), and emotions (the speaker's emotional states are always present in the utterance; we read them on the basis of: "I feel anger", "I feel joy", "I feel despair")<sup>9</sup>.

It is certain that intentions constitute a structure: the qualitative and quantitative system of wants manifested in a person's behavior, and that a person within the intellectual and sensory norm is determined in his behaviors by this very system. The damaged brain changes the structure of intentions and generates human wants in its own way.

Diagnosis of the communication involves first the assessment of the intentions system of the person examined, and then the assessment of the verbal and nonverbal means of realizing them. For example, the structure of intentions of an autistic child definitely differs from the intention system of a child with Down's syndrome. Studies show that the main difference concerns the need to inform and the need to communicate<sup>10</sup>. There is also a definite difference between the ways of realizing intentions both in the sphere of verbal and nonverbal behaviors.

In the behaviors of autistic children and children with Down's syndrome we can observe relative harmony in the use of words and nonverbal means. In the behaviors of children with cerebral palsy the two types of communication, verbal and gestural-mimetic, become independent systems, often contradictory, which definitely hinders the process of reading intentions, thereby thwarting the efficacy of the speech act.

Modality in schizophrenia is characterized as a rule by total confidence of judgment expressed by the schizophrenic person, whereas modality in aphasia results from a different, opposing attitude and manifests itself as continual doubt.

The system of intentions manifested in the child's behaviors shows the degree of harmonious mental development. The structure of intentions in the breakdown of the mind is the picture of the mind's disintegration (in Alzheimer's disease, as it progresses, all needs disappear).

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<sup>9</sup> On exactly the same subject see: S. Grabias, *Język w zachowaniach społecznych* [Language in social behaviors], Lublin 2003, Chapter: *Cel wypowiedzi* [The purpose of utterance], p. 289 et seq.

<sup>10</sup> Emotions can, as we know, be communicated intentionally (in utterances of the type: "I am extremely sorry", "What an idiot!") or can manifest themselves in a person's behaviors without his consciousness, e.g. in intensified gestures, uncontrolled cries. See: S. Grabias, *Język w zachowaniach społecznych*, *ibid.*

## 2. Action of Speaking

The traditional diagnosis of the communication was limited to assessing the action of speaking and seeking instances of agrammatisms in the texts produced by the person examined. It is still significant in logopedic diagnosis if we take at least the following components into consideration:

— motor activity of the speech organs: its reduced efficiency shows paralyzes or anomalies in the structure of these organs;

— articulation: the state of articulation follows from the system of several actions: phonematic hearing (which shows the complete or incomplete phonemic structure in the mind), the manner of realization of the full phonemic inventory (realization of phonemes in the basic position permits us to establish a set of phonological variants and interpret them as normative phones, deformations or substitutions), the process of coarticulation occurring in consonant groups<sup>11</sup> (coarticulation disorders are evidence of dysglossia, dyslalia, dysarthria, or impaired hearing);

— speech prosody: anomalous realizations of intonation, speaking pace, and of making pauses, are evidence of brain damage, impaired hearing or dysarthria, and they are a constant element of stuttering.

The theory of communication, especially sociolinguistics, has provided the logopedist with one more tool for the assessment of communication capacities. This is testing of dialogue skills.

## 3. Dialogue Skills

Dialogue, the most important form of human language activity, is the fabric of socialization process. It is through dialogue that the child gets to know the world and learns language. From the earliest moments of his life, he enters into social interactions through dialogue, first by nonverbal means and with time by means of words as well. Therefore, the structure and realization of dialogue can provide knowledge on the individual's mental and social development and on the degree to which he has mastered language.

A dialogue utterance is thematically open-ended. The dialogue participants can easily switch from one theme to others in their conversation. The utterance is unpredictable neither in its content nor in duration. It usually requires only the unconscious knowledge of the existence of a minimal interaction structure and the ability to fill this structure with the verbal and gestural-mimetic fabric. This structure can be presented in the following

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<sup>11</sup> A complete list of consonant groups in Polish is contained in the book by S. Milewski, *Lingwistyczne i dydaktyczne aspekty analizy fonemowej* [*Linguistic and teaching aspects of phonemic analysis*], series: *Komunikacja językowa i jej zaburzenia* [*Language communication and its disorders*], vol. 17, (ed.) S. Grabias, Lublin 1999.

model: initiation — reaction — coda<sup>12</sup> (“Shall we go for a walk” [*Idziemy na spacer*]? “Let’s go on the swings” [*Na huśtawki*]! “Let’s go then” [*No to idziemy*])). Each of the components of this structure may take its specific formal shape (e.g. absence of the coda, incomplete reaction) and, depending on the interaction possibilities of the person examined, it is conventionally or creatively filled with words, gestures, and mimetic behaviors.

In conversations with children within the intellectual and sensory norm the realization of dialogue in action (e.g. while painting) considerably differs from the realization of intellectualized dialogue (e.g. while telling a fairy story) both by the structure itself and length of themes, and by the nonequivalent participation of words in relation to gestural-mimetic means. Dialogue utterances in speech disorders take specific forms depending on the kind of dysfunction (different e.g. for deafness, different for Alzheimer’s disease and entirely different in schizophrenia). In children with speech development retardation they are structurally simplified and have the impoverished interaction fabric.

#### 4. Social Language Skills

In language interaction there are vast possibilities for subtle diagnosis of sociolinguistic language competence, which is a significant component of the social adjustment process. Sociolinguistics introduced into the description of interaction the concept of social and linguistic roles which require that interaction participants know interaction patterns and are able to choose language means depending on to whom the communication is addressed (talking to children is different from talking to adults, talking to the latter depends on whether they are the speaker’s family and friends or unknown to him; in official social interactions — talking to one’s subordinates is different from talking to one’s superiors)<sup>13</sup>.

The breakdown of the mind in Alzheimer’s disease entirely destroys the ability to realize social and linguistic roles<sup>14</sup>. In all types of speech

<sup>12</sup> On the methodology of describing dialogue see: J. Warchala, *Dialog potoczny a tekst [Colloquial dialogue and text]*, Katowice 1991; B. Boniecka, *Struktura i funkcje pytań w języku polskim [The structure and functions of questions in Polish]*, series: *Komunikacja językowa i jej zaburzenia [Language communication and its disorders]*, vol. 18, (ed.) S. Grabias, Lublin 2000; A. Domagała, *Zachowania językowe w demencji [Language behaviors in dementia]*, series: *Komunikacja językowa i jej zaburzenia*, vol. 20, (ed.) S. Grabias, Lublin 2007.

<sup>13</sup> I described the system of social and linguistic roles in detail in the book: *Język w zachowaniach społecznych [Language in social behaviors]*, Lublin 2003, chapter: *Spoleczna pozycja odbiorcy [Social position of the addressee]*, p. 268 et seq.

<sup>14</sup> An exhaustive interpretation of communication behaviors in Alzheimer’s disease was presented by A. Domagała, *Zachowania językowe w demencji I [Language behaviors in dementia]*, *op. cit.*

development retardation (in mental disabilities, in deafness, alalia, and in autism) the knowledge of social communication patterns develops with difficulty and usually remains at the level of substitute knowledge.

#### DESCRIPTION AND INTERPRETATION

To finish this necessarily simplified presentation of description we have to assert that description is the most important component of logopedic diagnosis. It is the logopedist's exclusive area of activity because it is only the logopedist who has the appropriate competence to assess disordered communication behaviors and the tools adjusted for the purpose of recording and describing various manifestations of these behaviors<sup>15</sup>.

Description in logopedic treatment permits us to realize two goals: a) it provides the necessary grounds for the final diagnosis, which is the identification of the disorder type; b) it shows the system of language skills and skill disturbances in interaction courses, which permits to program therapy and then to conduct it.

The second diagnostic procedure is interpretation. The logopedist, equipped with the descriptive knowledge of language behaviors, must identify the type of disorder, basing on the analysis of results of specialist examinations (medical, audiological, or psychological) and on the basis of the patient's family history. Only the family history can provide plausible knowledge on genetic predispositions in the family, including the period of the individual's life in which biological damage took place. The procedure called "differential diagnosis" in the model of logopedic treatment is based on the knowledge and experience of the logopedist, who often has to distinguish between disorders that have similar symptoms.

The procedures for therapy programming and for therapeutic treatment itself are clear and do not need any special comment. It is the duty of the logopedist to formulate the goals of therapy, methods of treatment and, extremely importantly, to define its measurable stages. All therapeutic treatment procedures have to be documented and constantly adjusted to the possibilities of the patient undergoing these procedures.

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<sup>15</sup> Nobody is an equal partner for the logopedist in this respect since his competence stems from the logopedist's object of research. These are speech disorders, which will remain outside the research scope of related disciplines such as linguistics, psycholinguistics, sociolinguistics. Within the scope of medical sciences remain humans in their biological entanglement. Logopedics, on the other hand, observes the participation of language in the development of individuals' minds (in their diverse biological condition) and in building social relationships.



## TYPOLOGY OF SPEECH DISORDERS

In logopedic practice there is always the dilemma formulated in the question about the typology of speech disorders: should we use the typologies listed in the international disease classifications<sup>16</sup>, or refer to the classifications compiled for the use of logopedic theory and practice?

For years I have invariably supported "the logopedic classification of speech disorders" and presented the line of argument, which still seems relevant<sup>17</sup>. Each typology is always a cognitive construct that segments the research space. If this space is speech disorders, their description can cover disorder symptoms, their causes or the ways of repair treatment.

In various classifications there are different proportions in this system and in descriptions they favor either causes (e.g. the typology proposed by I. Styczek) or symptoms (L. Kaczmarek's typology in Polish literature), or finally, they favor therapy procedures.

The medical classifications in question are descriptions of causes. They show that a speech disorder can be the result of one isolated cause or the result of a set of causes which disturb the action of the functions that affect the overall development of a person.

Obviously, the causes of speech disorders always lie in the biological structures and functions, these falling within the scope of medical disciplines. However, medical sciences find it difficult to get into the mind, and language behaviors entirely elude the methods of investigation developed by these sciences. Medical classifications are too closed to the subtle components of the phenomenon defined by the term "speech". I am convinced that the logopedist equipped with the ability to diagnose cognitive processes, to program and conduct therapy, is capable of building language in the human mind, improving its realization and stabilizing its collapse in cases of brain damage. These are strategies of logopedic treatment, for which he selects methods and means of treatment depending on the causes and symptoms of a disorder.

Here is the classification of speech disorders, which organizes logopedic treatment:

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<sup>16</sup> See International Statistical Classification of Diseases (ICD-10), Geneva 1992; Diagnostic and Statistical Manual of Mental Disorders -DSM-I, Washington 1994.

<sup>17</sup> I included it in the paper: *Perspektywy opisu zaburzeń mowy* [Perspectives of description of speech disorders], [in:] *Zaburzenia mowy* [Speech disorders], series: Mowa, teoria, praktyka [Speech, theory, practice], vol. 1, (ed.) S. Grabias, Lublin 2001. In the paper I present the "Logopedic Classification of Speech Disorders" and the expanded characteristics of individual disorders.



1. Speech disorders related to underdeveloped competences (cultural — knowledge of oneself and the world, linguistic — the ability to build grammatically correct sentences, communicative — the ability to produce utterances). Logopedic treatment consists in the strategy of building all or only some competences:

— deafness and hypoacusis: competences do not develop due to improperly functioning physical hearing;

— alalia and dyslalia: competences do not develop due to improperly functioning phonematic hearing (alalia affects all types of competence, while dyslalia is only a disorder in the realization of the phonological structure of language);

— oligophasia: competences do not develop due to mental retardation;

— autism: competences do not develop due to brain dysfunction.

It is clear that in each concrete case we deal with a different degree of competence but it is always insufficient for the correct realization of an utterance.

2. Speech disorders related to missing or disabled motor speech skills. Logopedic treatment consists in the strategy of improving different components of language and communication skills:

— dysglossia: it arises from anomalies in the structure of speech organs: cleft palate and cleft upper lip, occlusion defects, ankyloglossia, and laryngectomy;

— stuttering and cluttering: fluency disorders triggered by multiple organic causes and reinforced by logophobia;

— dysarthria: related to cerebral palsy (disorders of processes controlling the action of performing organs).

All disorders in this group lead to the incomplete or sometimes only substitutive use of the acquired skills.

3. Disorders related to the breakdown of the communication system. Logopedic treatment is part of the strategy of stabilizing possibilities of interaction:

— aphasia: caused by mechanical brain injuries, its symptoms being the breakdown of linguistic competence, communicative competence disorders or realization difficulties;

— schizophasia: associated with schizophrenia, its specific character manifests itself in the narrative and in incoherent dialogue utterances;

— dementia: the result of the death of neurons and synaptic connections. This is manifested most clearly in Alzheimer's disease and leads to the breakdown of narrative, decreased dialogue skills, disintegration of knowledge of

social relationships and, consequently, to the breakdown of “social language skills”.

It is this typology, which I call the “Logopedic Classification of Speech Disorders”, that has defined the proposal for standards of logopedic treatment in the present issue of “Logopedia”.

*Translated into English  
by Jerzy Adamko*