

MIROŚLAW MICHALIK

Pedagogical University of Cracow
Department of Neurolinguistics

ORCID ID: <https://orcid.org/0000-0002-9260-3014>

Perception – Meta-Scientific and Meta-Logopaedic Reflection

For the Professor of Professors – for everything

SUMMARY

The article tries to describe the cognitive process of perception from the perspectives of science, meta-science, and meta-logopaedics. To achieve it, it has been assumed that the world can be described through statements about reality (description), statements about statements about the reality (science), and statements about statements about statements about the reality (meta-science).

On the way to the ‘meta’ stage, the article mentions five human senses as well as the groups of the cerebral cortex areas which give perception neurological and neuropsychological character. Moreover, the concept of the neuronal network and the cognitivist perspective on perception have also been also mentioned.

The meta-scientific description of perception makes reference to three philosophical beliefs: realism, phenomenism, and idealism. The article also mentions the concepts of the philosophy of language. Such references give the article ontological and epistemological character.

Meta-logopaedic reflection on perception has been built on phenomenology and the philosophy of perception of Maurice Merleau-Ponty. Special emphasis is put on his claim that perception is the function of bodily (biological) conditions and the meaning aspects. Such cognitive orientation places the problem of perception in the realm of logopaedic theory and its critical judgement (meta-logopaedic level).

Key words: perception, sensation, phenomenology

Perception constitutes one of the most important notions in the classical typology of speech disorders created by Stanisław Grabias (1996), which is considered to be the foundation of speech therapy in Poland. Already in the introduction, the author mentions perceptual and realisation processes as the skills that

must be developed in order to properly acquire linguistic, communicational, and cultural competences (see: Grabias 2001: 37–38). He also points out that the diagnostic process should always include, among others, the structure of perceptual skills of the patient – its deficits will form the basis for further therapeutical procedure (Grabias 2001: 39; 2012b: 54; 2015: 30). The perceptual skills, also called biological or formative in recent literature, include: the physical hearing responsible for the reception of the voice waves typical for the speech frequencies, phonematic hearing responsible for the differentiation of the speech sounds, prosodic hearing which allows for the reception of intonation, rhythm, and accent (suprasegmental elements of language), properly formed skeletal and muscular systems, and – considering the modern neurobiological knowledge – the mobility of the brain and effective memory (Grabias 2017: 40–41).

If we assume – in broad terms – that the description of the world may take place through statements about reality (description), statements about statements about the reality (science), and statements about statements about statements about the reality (meta-science) (Bobrowski 1993; Życiński 1983), the notions of perception and its adaptation to the needs of speech therapy suggested by S. Grabias can be found on the level of science, i.e. sentences about sentences about the reality. It is the level – as described by Józef Życiński – of $n+1$ language. According to him, ‘Language displays its additional dimension as a multi-levelled construct. The basic level is constituted by the first language – so called objective language – which describes extra-linguistic reality. Any statements about the first language are formulated in the second language – so called meta-language. Generally speaking, the study of any language requires the usage of the $n+1$ language (Życiński 1983: 82). From the linguistic viewpoint, it can be said that ‘meta-linguistics [...] would be considered meta-science, with the status that is similar to meta-logic/logic or meta-mathematics/mathematics relation (Piotr Żmigrodzki, 2006: 57).

When applying this theory to the the notion of perception, the statement ‘he can’t hear, so he can’t speak’ is considered to be the objective language. The statement ‘for language to properly internalise, i.e. to appear in human mind without any programming, the individual must possess the biological skills which are prerequisite for language and mind’ (Grabias 2017: 40) is viewed as scientific statement. The question ‘what is the ontic status of perception?’ should be considered a part of meta-science. The following research will focus on the meta-scientific, or to be more precise meta-logopaedic, interpretation of the notion of perception which was scientifically described by S. Grabias and which is considered to be ‘a privileged type of experience’ (see: Maciejczak 2007: 13).

PERCEPTION AND SCIENCE

It can be assumed that perception is the act of the senses which produces impressions (Woleński 2001: 47). In Latin, *perceptio* denotes ‘receiving’ and the act of perceiving is defined as ‘the cognitive process in which we discern and apprehend objects, phenomena and processes that is the result of certain stimuli on the sense organs’ (Dubisz (ed.) 2003: 92–93). This psychological interpretation of perception is not fully reflected in the everyday context in which it is usually associated with ‘seeing’ (Woleński 2017: 6). For example, the first meaning of ‘perceive’ in the dictionary of Polish language denotes ‘to attain awareness or understanding of something through looking at it; to notice something (Dubisz (ed.) 2003: 1340)¹. On the other hand, from the perspective of epistemology, perception has a broader range of meanings as it denotes the whole spectrum of sensual perception including all of the five senses: sight, hearing, touch, taste and smell (Woleński 2017: 6)².

The beginning of the perceptual paths lies in the specific groups of areas within the cerebral cortex thus giving perception both neurological and neuropsychological aspects. There are three groups of cerebral cortex areas. 1. **Primary projection areas** which process the sensory information and allow for its further transfer - damage to these areas causes physiological disorders within the specific area of functioning such as lateral paralysis, impaired sense of touch, impaired sight or central hearing loss. 2. **Secondary association areas**, located immediately next to the primary areas, which are responsible for: the analysis and the synthesis of sensations allowing the brain to recognize signals, the interpretation of sensations and the management of movements, the synthesis of sensory data into the perceptual whole. Damage within those areas does not

¹ Polish verbs ,wiedzieć’ (to know) and ,widzieć’ (to see) have common etymology. ,Widzieć’ originates from the pre-Slavic *viděti, while ,wiedzieć’ from the pre-Slavic *věděti. The latter is derived from the former as it originated from the Proto-Indo-European 1st person singular perfectum (in: Boryś 2006: 691-692).

² The five classical senses are often accompanied by proprioception – the earliest developing and maturing sensory system of humans which receives information from the peripheral muscles, ligaments, joints, and is therefore connected with the motility and posture. There is no single organ responsible for proprioception and the stimuli are received and processed by the whole nervous system, with the cerebellum being the most important one and responsible for the position and motion of the limbs. It is assumed that within proprioception we include kinaesthetics – the sense which is additionally responsible for the perception of weight and resistance of other bodies (Maas 1998: 170, 174; Grzybowska 2013: 26). Some people incorrectly consider balance to be another sense – however, it is mainly regulated by the vestibule of the bony labyrinth and the vestibular nuclei of the brain stem, and is neurally connected to the cerebellum, the reticular formation, the muscles of the eye balls, extensor muscles of the limbs and neck, movement neurons of the spinal cord, the vestibulocochlear nerve, and the cerebral cortex (Przyrowski 2009: 14).

result in the loss of sensory functions but leads to the inability to process sensory information called agnosia. 3. *Tertiary areas* which integrate the information from the secondary areas and have multisensory character. They are not connected to any analysers and control cognitive, emotional, and biological functions. They also regulate the most complex forms of human activity: self-esteem, self-reflection, social behaviour (Herzyk 2005: 66–69; Pačalska 2007: 138–139; Walsh 1998: 62–63; Wolska 2000: 21–22). Of the three areas, the primary and the secondary ones guarantee the proper functioning of the perceptual processes.

Undoubtedly, perception cannot be regarded as a mere sum of impressions provided by the analysers due to the fact that ‘the world we perceive in the process of perception is not the exact reflection of the outside world’ (see: Grabowska, Budohoska 1995: 9). Metaphorically speaking, the brain experiences the world indirectly because the sensory organs translate the stimuli into the language of the nervous system – into the nerve impulses (Zimbardo, Johnson, McCann 2010: 28). Taking the above fact under consideration, we assume that perception is a creative process which involves active reception, analysis, and interpretation of the sensory phenomena, during which the fresh incoming data are processed on the basis of the already stored knowledge about the world (see: Grabowska, Budohoska 1995: 9, 90). It can also be said that perception is the process of ascribing meanings to the sensory stimuli (Zimbardo, Johnson, McCann 2010: 26).

From the point of view of logopaedics, perception of speech is an important neuronal phenomena. The specificity of this process is caused by the following factors: its genetical programming, the localisation of linguistic functions and processes within the brain, the speed of identification of speech sounds as compared to other sounds, the dominance of the right ear in receiving speech sounds, and the categorical perception of phones (in: Kurcz 2011: 72)³. The process of speech perception is currently explained on the basis of the so-called network theories which revolve around the assumption that the functioning of the mind is dependant on the network of links between neural nodes. These links can activate (stimulate) other nodes or slow them down (repress) and stop their functioning (see: Kurcz 2011: 77). To be more specific, the nodes of the neuronal network display three characteristics which determine the organisation of a given action. These are: activation (self-sustained mode which follows the all-or-nothing rule)⁴, priming

³ Categorical perception, as opposed to constant perception, takes place when the permanently changing string of physical stimuli is interrupted by tight unchanging boundaries of its perception. In case of speech, the phenomenon mainly pertains to consonants (Kurcz 2011: 73).

⁴ For example, the process of activation of the articulatory apparatus takes place only when the nodes of the lowest level are activated within the muscles of the throat, oral cavity and nose (MacQueen 2003: 199).

(automatically happening preparation)⁵, and the strength of the link (dependant on the number of nodes and the learning process) (MacQueen 2003: 198–207).

A detailed interpretation of the neural network model which explains the phenomenon of neurobiological exchange of information between the sensation and cognition was presented by Marsel Mesulam, who regards perception, language, attention, memory, and thinking as human cognitive skills. According to Mesulam, these processes are the results of the functioning of the five main neurocognitive networks: 1) spatial awareness (dominant in the right hemisphere, located in the posterior parietal cortex, in the frontal eye fields, and in the region of cingulate cortex), 2) linguistic (dominant in the left hemisphere with the epicentres in Wernicke's and Broca's areas), 3) memorial-emotional (located in the hippocampus area, entorhinal cortex, and the amygdala), 4) operational memory and executive functions (with the epicentres in the prefrontal cortex and the posterior parietal cortex), 5) recognising of object and faces (located in the medial temporal lobe) (Mesulam 2009: 234, 303–304). These networks, responsible for the complex cognitive functions, operate at the highest level of the sensory processing which originates in the primary sensory areas, e.g. primary visual and hearing cortex. The primary sensory areas send the information to single-mode (single-sense) association areas⁶, e.g. the field specialised in recognising the individualised timbre of voice, the area responsible for the coding of lexical forms (audio or visual), or the field which deals with the spatial placement of objects. Single-mode association areas can be divided by one or more synapses from their corresponding sensory area. Therefore, we distinguish the initial (single-synapse) and further (multi-synapse) information processing areas. The third stage of the neurobiological process of sensation-cognition involves the activation of hetero-mode (multi-mode i.e. multi-sensory) association areas which: receive convergent information from single-sense areas of several modalities e.g. sight and hearing, and react to the stimulation of more than one sense. The penultimate, the fourth stage, is connected to the processing of information in the para-limbic areas, responsible for directing emotions and motivations towards external behaviours. The anatomical structures of these areas surround the medial and basal components of the hemispheres. The last stage of the neurobiological route which joins the sensory stimuli to the complex cognitive processes leads to the five basic structures of the

⁵ During the articulation, the higher levels of the nervous system activated the nodes which are located there, which in turn prime the nodes located within the speech apparatus. Thanks to this priming process, the adequate movement pattern is produced, which is preceded by the intention to speak and the mental representation of the sound (MacQueen 2003: 199–203).

⁶ Single-mode association fields must meet three criteria: 1) routes attached to them must originate in the primal sensory areas or other single-mode association areas of a given sensory type; 2) the neurons located in the area react to the stimulation by this exact sensory modality; 3) the damage to this area will cause deficits limited to the same modality (Mesulam 2009: 240–241).

limbic system: hippocampus, amygdala, entorhinal cortex, septum pellucidum, and the so-called innominate substance. The limbic system, which is anatomically considered to be the system of cortex and sub-cortex structures, takes part in the regulation of emotional behaviour and some emotional states such as fear, pleasure, contentment. It is essential for the processes of memorisation and motivation. The highest synaptic levels of sensory information processing include multi-modal, para-limbic and limbic cortex, jointly called as trans-modal areas (Mesulam 2009: 239–244).

A cognitive interpretation of the process of perception has been presented by Łukasz Przybylski. According to him, perception – which denotes acquiring information about objects, states, or features of the environment by the perceiver – involves several stages:

1. Gathering of material provided by the environment which will subsequently be subjected to the perception process.
2. The selection of data which the perceiver will focus the attention on – it is the result of the preference for the given stimulus or groups of stimuli which function as a mixture of multi-modal sensory data within the natural environment.
3. The changing of the stimuli that affect the receptors (neural cells specialised in the reception of a certain type of data) in the process of transduction – the transformation of the energy of the given stimulus (the energy which is specific for every kind of sensory modality) into the electric (bioelectric) energy. This energy constitutes the specific language of the neural impulses which can be decoded by the structures of nervous system.
4. The activation, on the higher levels of information processing, of the so-called knowledge loop of the perceiver which comprises of all the prior knowledge and the memory processes.
5. The creation of *percept* – a state of mind with which an individual recreates a certain fragment of the world.
6. The supplementation of the perception cycle by the recognition and the action (Przybylski 2008: 132–133).

The scientific perspectives on perception presented above may be helpful in the selection of methods, procedures, and strategies of speech therapy process. The typology of speech disorders by S. Grabias may be regarded as the best example of such help.

META-SCIENTIFIC PERSPECTIVE ON PERCEPTION

The following part shifts the attention from the scientific level of description and methods of therapy to the field of meta-science. It suggests looking at the no-

tion of perception from the relatively broad epistemic perspective. Such approach follows from the concept of meta-linguistics created by Franciszek Grucza (1983) who states that science, apart from the cognitive purpose, serves methodological purposes that allow for critical insight into the existing knowledge (see: Grucza 1983: 19; Okoń 1998: 234–235).

The first step of our study differentiates between perception and sensation. Following R.Searle, we assume - which is a novelty when compared to the scientific approach to perception and perceptive skills taken by speech therapy - that perception has an intentional dimension. What is more, to quote R.Searle, 'the notion of perception assumes the achievement of a goal, while the notion of sensation - not' (Searle 1995: 224). From a broader perspective, epistemology - in an attempt to answer how various sensations ('for the subject') are connected to the outside objects and how the sensory process works - makes reference to three beliefs: realism, phenomenalism, and idealism. According to *r e a l i s m*, the objects of our perception are real, i.e. existing in reality, and external to us (Sikora 2017: 8–9). In other words, there is a reality which is independent of us and which can be explored (Aduszkiewicz (ed.) 2004: 433). Direct realism, also called naive, claims that it is possible to fully grasp reality through sensory perception. On the other hand, indirect (critical) realism believes in the existence of the outside world which is dependent on the subject but which cannot be fully grasped - the transition from our data to the external physical subjects is based on the assumption that the whole variety of our sensations is the representation of external actions or things and is therefore an indirect element between our mind and the world. To sum up, our sensations are adequate to the factual state of things because they represent it in an exact way (Aduszkiewicz (ed.) 2004: 433; Sikora 2017: 9). Obviously, the question arises: how can we be sure that the sensory representation of a given object constitutes its true representation? (Sikora 2017: 9). The answer to that question is sought by *p h e n o m e n a l i s m* - an epistemological belief that the world cannot be discovered as it really is but as it appears to us or that sensory phenomena are put together by the perceiver to create complete objects. The first definition is connected to the so-called objective phenomenalism, the second - to subjective phenomenalism (Aduszkiewicz (ed.) 2004: 168). According to David M. Armstrong, we can assume that 'phenomenalism is a thesis that the physical world is a construct created by the actual or potential sensations, or that it is nothing more than the actual or potential sensations' (1995: 189). Furthermore, it must be stated that even though sensations are external to us, they do not grant us any knowledge about external reality as the only data that we possess is of the internal character (Sikora 2017: 10). If we agree - following phenomenalism - that the data is constituted by our internal impressions, how can we assume that it originates in external reality that would be called 'objective' by realists? The

answer has been suggested by idealists. Idealism appeared in the philosophy of perception mainly because of the inconsistencies noticed within the phenomenological approach. In order to neutralise these inconsistencies, idealists claim that our aggregate knowledge is limited to impressions as they are the only things we can get access to through our perception - according to them the thesis that the world exists independently of our sensations is baseless and unnecessary (Sikora 2017: 10). From a broader perspective, for idealists the reality can be considered an idea (Platon)⁷, mind, or spirit (Hegel). Within idealists, we can distinguish between objective idealists who claim that spirituality is the internal structure of substantial reality and subjective idealists for whom reality is a complex of ideas created by consciousness (Fichte) or even individual consciousness (Leibniz, Berkeley, Schopenhauer) (Aduszkiewicz (ed.) 2004: 247).

The three main epistemic concepts of perception are accompanied by the approaches which emerged from the philosophy of language. For example, in his references to the unsolved problem of the existence of reality and its perception, Adolf Szotysek claims that 'there is no direct route from the world of sensations to the mental world; no direct link apart from the peculiar medium or bridge which can join sensory thinking to mental thinking - the linguistic thinking (1992: 12). When looking at language from a broad perspective that includes metaphysics, we can distinguish its three layers:

1. External, linguistic layer which includes morphological-syntactic-semantic structure of the sentence;
2. Metaphysical, located under the external layer, which is anchored in being and mind of a human subject and which assumes the adequacy of cognition and being. This layer allows for the formulation of philosophical systems, which in turn generate subject languages of scientific theories. For example, metaphysical language is the basis for linguistic theories;
3. Transcendental, located under the metaphysical layer, on the so-called absolute ground, its essence can only be discovered through purely spiritual experience, through fundamental theories formulated in Physics or Mathematics, or through acts of faith (Szotysek 1992: 36,65,105–106). From the point of view of perception, metaphysical language is the most important one as it joins the world of ideas with the world of objects. It possesses intellectual tools which enable description, causative explanation, distinguishing of analogies and anomalies, and pointing out context. Its two polar forms are: informal language on one hand and the universal language of science on the other (Szotysek 1992: 120). Metaphysical language, which

⁷The author would like to express his gratitude to the Reviewer for pointing out that for Plato the surrounding world constituted a reflection, an illusion of the reality. Similarly, for Hegel the reality constituted an Idea (the Absolute), while the Mind or the Spirit are another ways of describing this reality for the needs of historical or cultural reflection.

is at the same time a construct, a process and a tool, creates human subjectivity and constitutes linguistic reality which in turn generates real world in terms of cultural and social sphere and creates tools for the exploration and participation in physical reality (see: Krąpiec 1985: 142; Szołtysek 1992: 121).

PERCEPTION – META-LOGOPAEDIC INTERPRETATION

The best way to introduce the meta-logopaedic perspective on the description of perception is perhaps quoting some of the claims of phenomenology – the philosophical belief initialised by Edmund Husserl at the beginning of the 20th century and focusing on the study of the essence, of ‘that which appears’ (Merleau-Ponty 2001: 6)⁸. Firstly, according to Shaun Gallagher and Dan Zahavi in their work *Phenomenological Mind*, perceptual processes are filled with meaning and shaped by the context thanks to the bodily existence of man, his/her bodily skills, and the interaction with the environment (2015: 14–15). Secondly, directly referring Husserl’s beliefs, we assume that perception does not present pictures or images of things but the things themselves (Husserl 2003: 107, in: Gallagher, Zahavi 2015: 131). Thirdly, to perceive the world is to create representative structure in the mind – a kind of map which represents the external world (Gallagher, Zahavi 2015: 132). Fourthly, perception is an active and pragmatic process (Gallagher, Zahavi 2015: 142). And finally, apart for the above-mentioned aspects of perception (physicality, contextuality, environmentality, pragmaticality, activity) we must also mention the cooperation of the sensory and the motile system in the neurophysical perceptual processing (Merleau-Ponty 2001: 29). Summing up, the phenomenon of perception should be associated with such notions as: meaning, context, activity, pragmaticality, physicality, neurophysiology, senso-motile cooperation. From the logopaedic perspective, it is possible to notice that these notions also create the theory of speech therapy and influence its diagnostic and therapeutical course of action.

Maurice Merleau-Ponty (1908–1961), French thinker, representative of phenomenology, enthusiast of existentialism and of Marxism, can be considered the philosopher of perception (Cichowicz 1976). He was the philosopher of being and of human body as well as the processes which enable perceiving the reality. His interests in the matters of language (phenomenological-existential philosophy of language), perception, and biology also make him the pioneer of a certain form of

⁸ It should be added that modern phenomenology in the interpretation of the philosophers of mind and cognitivists is related to the first-person description of how it is to experience things (see Gallagher, Dan 2015). Despite the first-person description, phenomenology managed to join extreme subjectivism with the extreme objectivism (Merleau-Ponty 2001: 17).

meta-logopaedic thinking. What is more, the philosopher also studied aphasia and dysarthria (Merleau-Ponty 2001: 196, 211) as well as the expressive and perceptual speech disorders (Merleau-Ponty 1976: 110–111).

In order to show the range of Merleau-Ponty's reflection, it is important to point out that the departure from the critical rationalism towards concreteness (e.g. the focus on physical functioning) constitutes an important ontological part of his philosophy. Meanwhile, his epistemological reflection revolves around the concept of perception. When accepting the chair of philosophy at Collège de France in 1952, Merleau-Ponty said that perception is the basis for everything as it teaches us 'an obsessive bond with being' (Merleau-Ponty 2003: 23), and the perception itself – in the words Marek Maciejczak, who interprets his philosophy – is a way of accessing the world through direct experience of each situation (2007: 53).

Merleau-Ponty's phenomenological theory of perception seems to have two intertwined dimensions. The first dimension pertains to the human body, the second to the aspects of meaning. According to the French philosopher, the existence of the world has the same importance as the existence of the human body. 'The issue of the world (...) and the issue of the body is that everything is contained within them (Merleau-Ponty 1976: 115). The only true beings are the world and the body. There is nothing beyond them. The control over one's body allows for transcending the limitations of the bodily life. 'The use that one can make of the body – says Merleau-Ponty in his essay on words and body as forms of expressions – is transcendental in relation to itself as a biological being' (Merleau-Ponty 1976: 102). The body is not limited to its mechanical dimension – "(...) our body is something more than a tool or means: it is our expression in the world, a visible shape of our intentions (Merleau-Ponty 1976: 28). Expression involves speaking, which – like any other form of activity – is grounded in biological background. This fact is underlined by Merleau-Ponty who states that 'there is no word or action of humans which would not be somehow related to our biological being' (1976: 103).

Human body is a point of reference for the world and constitutes its most important part. In his *Phenomenology of Perception*, the philosopher says- 'my body is the axis of the world' (Merleau-Ponty 2001: 100). It is paradoxical that the consciousness of the body is possible thanks to the existence of the world but at the same time the body is 'our general way of possessing the world' (Merleau-Ponty 2001: 166). Even if we assume that it is not direct possessing, it certainly can be called 'experiencing' – thanks to the structure elevated through body and developed through experience' (Maciejczak 2007: 73). The body, apart from the realisation of perceptual and cognitive processes, is also a guarantee for understanding another person. In the essay *Expression in the light of experience and*

reflection, the philosopher claims that ‘through (...) my body I have adopted to others’ (Merleau-Ponty 1976: 126–127). At the same time, he realises that the body, which constitutes the world and the understanding of others – the so-called ‘phenomenal body’ (Merleau-Ponty 2001), can stop performing cognitive functions due to illness or disability. The structural disabilities of the body prevents the subject from ‘rooting’ himself in the world, and the experienced world becomes disintegrated. The phenomena has been described by Marek Maciejczak in the following way: ‘When the body of the ill person ceases to *explore* the world, there is no basis for the *dialogue* between the subject and the world (2007: 83). When we change the perspective from meta-logopaedics to logopaedics (meta-science to science), it becomes clear that the perception disorders correlated to motile and physical disorders or to illness are regularly found within the nosology of neurologopaedics and gerontologopaedics.

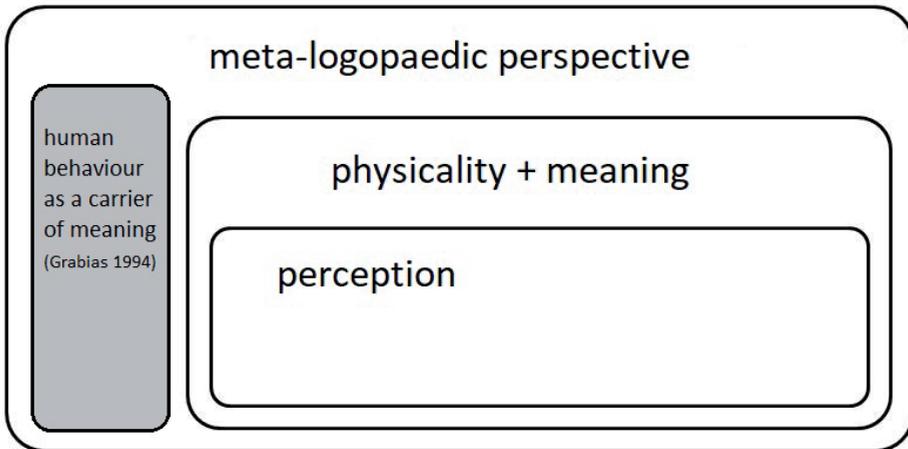
The phenomenon of perception is intertwined with the matters of meaning by Merleau-Ponty. If we assume that dysfunctional creating of meanings is immanent feature of many speech disorders, the correlation of perception and semantics automatically becomes a problem of logopaedic nature. In *Phenomenology of Perception*, the philosopher writes: ‘Classical analysis of perception differentiates between sensory data and meaning, which are produced by the act of the intellect (Merleau-Ponty 2001: 150)⁹. The semantic, or even symbolic, matters are associated by Merleau-Ponty with the phenomenon of human body – ‘the experienced world, constituted by the the structure built by body and developed by experience, creates [...] environment which enables the creation of symbolic worlds: science, art, religion, etc. (in: Maciejczak 2007: 73). Rooting perception within biological functioning allows us to associate it with the logopaedic theory of cultural competence which is understood as the ability to participate in culture (Rittel 1994: 27, 31) and associated with such terms as: general knowledge, experience, rules of cultural interpretation, permanent disposition to partake in culture, conventions of cultural rules, interpretation of lingual and non-lingual symbolic behaviours (Rittel 1994: 138). In the matters of semantics only, Merleau-Ponty believed that ‘being a subject – a body – already entails possessing and utilising certain structure with its on system of meanings’ (in: Maciejczak 2007: 73) and that: ‘[...] as an active body it projects itself to the world through the capacity of its gestures, expression, and finally speech, in order to establish meaningful relation between itself and the world (Merleau-Ponty 1976: 31). Human body, perceptually active and biologically fit, conveys meanings through its behaviour. This perspective clearly relates to the claim of Stanisław Grabias, fundamental for logopaedics, that human behaviours are the carriers of meanings (1994: 218).

⁹ Such way of interpretation obliges us to include the problem of intellectual ability (‘act of intellect), in our case – oligophasia, in the scope our reflection.

SUMMARY

For the needs of logopaedics, perception is usually described through subjective language (statements about reality) and scientific language (statements about statements about the reality) (see: Źyciński 1983: 82). This article, by asking about the ontic and epistemic status of perception, opens up the possibility of meta-scientific interpretation of perception – interpretation which is dominated by statements about statements about statements about the reality (Bobrowski 1993; Źyciński 1983). Thanks to this new perspective, perception is not only the cognitive process, cognition, awareness of objects, phenomena, and processes which are caused by the stimuli, but becomes a way of thinking about the object of perception - a process of constituting the object or being drawn to it (see: Migasiński 2001: 482).

The choice of phenomenological perspective – directed by certain theses of Merleau-Ponty, who puts emphasis on biological, bodily, and meaningful contexts – allows for the interpretation of this cognitive process from the level of meta-logopaedics, which is a part of meta-science. This broadest scope, in which perception becomes the function of physicality and semantic aspects, is also dependant on human behaviours that convey meanings. Graph 1 illustrates the above-mentioned relationship.



Graph 1. Perception from the meta-logopaedic perspective.
Source: Original research.

According to Professor Grabias, it is impossible to independently acquire linguistic competence without perceptual skills. Without his theory of linguistic competence disorders, which encourages meta-logopaedic reflection, there would be no logopaedics as a science.

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