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Parkinson's disease. Selected aspects of movement as a side note to Eugene Minkowski's works

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Phenomenological psychopathology is one of the most interesting trends in contemporary psychology. Its influence is especially important in formulating psychological concepts. Psychiatric nosology cases were described with the help of these concepts. One of the most prominent representatives of this trend was Eugene Minkowski. The article is an attempt to apply his concepts to a description of a neurological disease (Parkinson 's disease).

Key words: phenomenology, psychopathology, movement, Parkinson's disease

The way in which philosophy names a reality delineates the standards of understanding that reality. Kendler and Parnas (2008, pp.2-4) list four reasons why psychiatry needs philosophy, and they boil down to the need of ontological agreeing the notions used in this field of knowledge. The word "philosopher", in reference to the pioneer of phenomenological psychiatry, Eugeniusz Minkowski, has been used here for three reasons.

First of all, the influence of phenomenological method upon the notions used in psychopathology has been described in detail, which does not mean that this description is complete. This applies to psychiatric disturbances, for example schizophrenia or depression (Fuchs, 2010a, 2010b; Minkowski, 1968, 2002). I want to describe – using Minkowski's language – some psychic phenomena that accompany Parkinson's disease, in order to examine the possibility of formulating a phenomenological description in reference to diseases which transgress the framework of psychiatry. Second of all, at least some of the works of the French psychiatrist indicated here constitute a conglomeration of various genres of philosophy, which have both the philosophical and philosophical–phenomenological background. Third of all, it is worth coming back once more to some notions used in Minkowski's philosophy, in order to find – thanks to his work – the possibility of formulating basic notions of psychology and contribute to the understanding of psychic disturbances.

The disease which I am referring to was described by Parkinson in 1817. Its physiological background has been studied until today, and the studies are not completed. The basis of its diagnosis includes, among other things: slowness of involuntary movements, progressing fatigability, hindered performance of sequential movements while walking, rest tremor of limbs, rigidity of passive movement, postural instability, and others. Hiposomii and visual hallucinations are also mentioned (Hilaly et al., 2013, p. 174). Neurologists possess vast knowledge about the etiology of Parkinson's disease (*ibid*., p. 182). The following are listed as the main causes of the disease: genetic predisposition, accelerated aging, toxic factors (endogenous and exogenous ones), neural infections, and oxidative stress. Epidemiological reports differ in terms of value (Woźnicka, 2008, p. 59). I am not involved in neurological medical studies, which are and probably will remain the core research concerning Parkinson's disease. Those studies continue to give the biggest hope to the thousands of people suffering from that disease, as scientists continue to reach new, sometimes surprising conclusions (Derkinderen et al., 2010). This does not imply, however, that it is not worth to look for psychological factors influencing the disease, the more that the very search may make an interesting contribution to the discussion on what today's psychology, psychopathology, and psychiatry are about (Sobow & Sławek, 2006, Wichowicz, 2009).

While the psychic signs of disease are its immanent constituents in case of schizophrenia and depression, in case of Parkinson's disease they are very frequently the person's reaction to the disease. In other words, whereas schizophrenia and depression are subjective states of consciousness, the mental problems of a patient with Parkinson's disease consist less of a distorted assessment of reality, and more of the assessment of the disorder by the outside world. Physical activity has been considered a factor that alleviates the disease (Lewicka & Rodzeń, 2006). As in case of most disturbances, the maintenance of professional activities by the patient has

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a beneficial effect. In describing the mental factors of Parkinson's disease I see the possibility of being able to refrain from and spare ascertainments to the patients (McCall, 2007, pp. 107-115), which often boil down to stating that the longer a person has a healthy lifestyle, the longer s/he stays healthy. Such pieces of advice are far from being therapeutic, the more so that seldom do we know whether the patient's declarations are expressions of satisfaction with finding the lost sense of life in the disease (Fox, 2002), or just rationalization of the existing state of affairs.

In this paper I am interested in phenomenology, first of all as eidetic method. Minkowski uses it in a masterly manner, attaching to the notion of "phenomenology" a sense which is closer to the wording used by Husserl in *Ideas*, where the "role of beings intermediating [in intentional acts – P.S.] is taken over by species of mental intentions" (Chrudzimski, 2009, p. 122). Minkowski's considerations perfectly illustrate his eidetic manner of wrestling with issues, approaching and moving away from being, in incessant tension of creative intuition, which sometimes takes a roundabout way to formulating a notion.

I take into account the fact that analysis of time and space is a pivotal philosophical undertaking of phenomenological psychopathology. In this study it will be manifested that mental diseases „not only break the continuity of normal existence. They are sometimes accompanied by a radical change in subjective temporality, even to the point of fragmentation of self in time" (Fuchs, 2010b, p. 76). In the first part of this paper I shall present the psychology of functional norm for the acts of intuition, perception, and attention. Part two contains the psychopathology of those acts. Both parts are connected by means of the notion of movement – walking.

THE CENTRAL FIGURE

The content of this text is a reflection concerning the ideas of Eugène Minkowski. He was a keen psychopathologist, who wrote works that sometimes were close to poetry. The beauty of descriptions is characteristic for phenomenological descriptions, though (Fuchs, 2010a, 2010b). Minkowski was not a philosopher in the technical sense of that word. Phenomenology, which he got to know during the studies of medicine, interested him as a way of perceiving the world, for him it was not only the method or philosophical basis of theoretical thinking, but also a natural way of everyday thinking. That is why, discussing the understanding of time and space in the philosophy of the French psychopathologist, it is necessary to include in every description a part of his practical life interpretation, to be specific – the professional activity.

Initially, Minkowski worked in the field of analytical experimental psychology and medicine. Influenced by his wife Françoise Minkowski, born Brokman, with whom he often cooperated, he became interested in psychiatry, and in it he found a creative application for eidetic method. He is more known as a humanistically-minded psychiatrist (Kępiński, 1994, p. 23), yet in recent years the philosophical aspects of his works have been discussed ever more often. I am of the opinion that Minkowski's ideas remain valid at present, the proof of which are the reissues of his books.

Among the great phenomenologists, those who influenced him the most were Scheler, Husserl, and Heidegger. The latter first of all via a friend – Ludwik Binswanger. Minkowski possessed the exceptional gift of developing rich content on the basis of details. He studied relations between psychic data, not their origin (Metzel, 1970, p. xvii). In his philosophy, Bergson's thought is strongly pronounced (Spiegelberg, 1972, pp. 236-247). Also, the relations between Minkowski's thought and Sartre's philosophy are found (Macgregor). He maintained close connections with Poland, and translated some of his books into the mother tongue, yet I have not come across information that his more extensive works being published in Polish. In 1965 he received the honorary doctorate of the Warszawski Uniwersytet Medyczny.

PSYCHOLOGY OF THE PROCESS OF WALKING

MOVEMENT

Movement can be studied in various ways (Bermúdez, 2011, p. 33). Accurate measurements are close to the positivist tradition. Time and space constitute the physical and objective circumstances of movement in it. According to Minkowski, they are not the constant setting of events, but necessary constituents of the self-awareness in the subject. Constituents which themselves require the researcher to assume a definite epistemological attitude are: involvement of intuition, possessing acquired skills pertaining to movement, volitional and sensory control of movement, involving the entire body and attention in it.

INTUITION AND WALKING

The share of intuition in cognitive acts of man makes one of the biggest problems for epistemology. It is due to the fact that – like awareness, which has the peculiar ability to study itself – intuition also may be both a method and dynamic object of studies. Intuition is a factor constituting (Rosińska, 2012, p. 236) the continuity of movement, requiring the analysis of many psychic acts, heuristic processes in particular (Kolańczyk, 2009, pp. 40-62).

Among various types of human behaviour, one can indicate those which, at least at the first glance, contain similar and in their similarity repeatable elements, and those which – being almost identical in their modules – are strongly differentiated, as a matter of fact. Among the former ones is the way man moves when operating a part of automatic manufacturing of an article or part. One can even ponder whether in case of such an activ-

ity we perhaps have to do with repetition of algorithmic thinking (Guilford, 1978). The latter contains processes damaged by Parkinson's syndrome: among others situational talking and walking. A healthy individual never takes two identical steps, if only through the fact that the next "identical step" is preceded at least by the experience of the previous "identical step". In order for walking to be a fluent process, the next new step must be connected by certain – proper for the standardization of motor activity – psychological acts, which are related to the entire past of an individual and that individual's projection of the future. Walking is the embodiment of the past, happening with every step, as its comprehensive repetition.

A basic capability for walking is the intuitive assessment of the necessary length of the step. This intuitive part of perception allows a health individual to move without the awareness of moving. It means that the perception-controlled length of each step is unconscious, smooth, and incessantly changes the assessment of space-time aspects of movement, their length, speed indispensable for covering a distance, etc. As a result, walking is characterized by absence of precision in repeating its fragments – steps, yet it is functional due to the fact that an individual achieves its aim. During the phenomenological research we can study acts of awareness that are accompanied by movement.

LEARNING TO WALK

Walking is one of the activities, which the environment teaches man very quickly and through substantial reinforcement. The first aspect of learning to walk makes it similar to the development of speech skills, and is correlated with it, the second makes similar to training of cleanliness (Lenneberg; 1969; Chomsky, 1996). Similar to speech, walking is important for numerous functions of consciousness (Adolph et al., 1993) and, as elements of the training of cleanliness, it is sometimes remembered very painfully (Reich, 1972, pp. 225-281). Learning to walk entails perception of self as a person being in relation to other people, by which this learning is a socialization process. Associations occurring in that process penetrate deeply into human memory, creating with it other components the culturally formed psyche (imagination), unconsciously manifesting functional wholes (Bartlett, 1955, pp. 239-293). The movement in a given moment engages the entire human memory, confronting what had been remembered in a distant past with the current acts of awareness. Walking depends on the age of man, who in various periods of her/his life somehow learns to walk anew, depending on his physical aptitude.

What is more, walking is directed to objects outside the body, and requires picturing to oneself in future numerous basic pieces of information, among them: position of the target in relation to the body, distance, obstacles, etc. (Bermúdez, 2011). All those elements of assessment are important components of the decision concerning movement. As a result of the functioning of decision processes, a step is a volitional movement, at the same time such, in which awareness – inseparably connected with planning the future and describing the present – often gives way to the automatism of the entire human corporality.

THE PERCEPTION OF WALKING

Consciousness synthesizes steps which are identical in perception, creating an image of uniform and unique motor activity. There is perception A, which makes note of the fact that "each voluntary movement takes place in a certain environment, against the background, which is defined by the same movement …We perform our movements in space which is not «empty» deprived of relations with them, but – on the contrary – remains in a very definite relation with them. Honestly speaking, movement and [its] background are but artificially delineated parts of a bigger whole" (Merleau-Ponty, 2001, p. 157). Body and movement are a synopsis of human life, whereas the existence of various modes of awareness "is based on 'intentional arch', which projects around us our past, our human environment, our physical situation, our moral situation, or which rather makes us situated in reference to all those. It is this intentional arch which creates a unity of senses and intelligence, unity of sensual receptiveness. And it 'breaks' in disease" (*ibid*., p. 155).

Perception B entails that a distinct object arises in consciousness, as a whole, being simultaneously related to the background. Movement, in turn, is available in observation, both to external perception (movement of other material objects), and in introspection. In perception B, movement is perceived as most closely related to the environment, having its history, being a subjective activity of the organism. Man learns the constituents of that relation throughput the entire history of her/his life, the content related to that activity thus makes up an important part of the intentional arch.

ATTENTION

One more act of consciousness should be mentioned, which invariably accompanies walking, that is attention. When the share of intuition in checking the achievement of the target of movement is adequately big, then attention "slips" smoothly from one object to another. Then, we speak about musing or falling into thinking. When attention momentarily dominates in the awareness processes, time is focused upon a selected element of reality, and invalidates its other components. Objective time disappears as a certain moment of awareness, while an individual's analytic attention looks for details in representation, a detail which will dominate the entire feeling of movement related to the body. Visual intuition and attention constitute two ends of one cognitive continuum, limited by immobility, detail, strong distinction of the figure and its background on the one hand, and dynamics, omission of detail, poor division between the figure

and its background, and intuitive capturing of movement in a dynamic world on the other hand. The activity of walking is conditioned by a relation between intuition, perception, and attention.

INTUITION *VERSUS* PERCEPTION AND ATTENTION

Intuition, perception, and attention are constituents of the synthesis of movement continuity. They are all interrelated. Bergson – Minkowski's teacher of philosophy – studied the share of intuition in creative processes of philosophical thinking. He found the existence of a certain starting point for cognizance – the power of intuitive negation, and asked: "does the first step of a philosopher – when his thought is not sure yet, and nothing definite has been formulated in the doctrine – not consist of definite rejection of certain things? … And if it leads to changing what it is affirmative of, it accomplishes that also thanks to the power of negating immanent intuition or its conception" (Bergson, 1963, p. 74).

In Bergson's expressions, arguments close to phenomenology resonated strongly. When analyzing the common basis of the conceptions of consciousness, Bergson stated: "truly, beyond word and beyond sentence, there is something simpler than sentence, and even simpler than word: the sense, which is more a movement of thoughts than the thing conceived, more a direction than movement."(*ibid*., p. 87) and further on: "awareness comes outward and exteriorizes in relation to itself" (*ibid*. p. 90).

The process of intuition, as an activity of awareness, is not defined clearly. On the one hand, when we talk about creative intuition, we have in mind an assigned activity of awareness. On the other hand, though, intuition is – to a greater or lesser degree – an element of every human activity, including perception, as I mentioned above. The influence of intuition in the process of perception allows an individual to sense (perception A) and/or see (perception B) movement in an image.

The perception of awareness manifesting itself has to do with an excessive amount of stimuli, which it has to reduce and thus transform into information. This process takes place thanks to the functional properties of the central nervous system (CNS) (Gibson, 1969) and the participation of intuition in perception. In other words, this sensing reduces the number of associations, leaving in the field of perception only those, which are indispensable to sustain the variable image of reality.

The process of perceiving motion in the background and a moving object should contain a certain consistence of perceptions A and B. A moving object, standing out in the image is set against a moving background, be it a flying bird against cloudy sky. When the analytic perception is initiated, the movability of background elements is unnoticeable, so that the movement of an object having a static reference system can be easily measured. This movement becomes something exceptional against the background of observation, and as such is transferred to attention. However, awareness may – as a result of setting – perceive many elements of the background as moving ones. The image then vibrates, pulsates, is less sharp, its details cannot be captured, and contains a moving object. One of the main elements of the world perceived, then, becomes the relativity of movement.

Thanks to intuition, in the process of perception in awareness emerges an image, an object, which "for a normal human being […] is 'telling' and meaningful, the arrangement of colours has immediate significance, whereas an ill person has to bring in the meaning from somewhere else, performing the genuine act of interpretation" (Merleau-Ponty, 2001, pp. 150-151). It should be added that the image is telling and meaningful, as it is always moving, in a specific way. In that movement, the motor activity of the object, and the variable nature of the background are of the same nature, being an environment in which other acts emerge, as they in a fundamental way distinguish the intentional relation of awareness and corporeality of an individual with the world, thus being vital in the acts of communication.

Movement is controlled by perception, which "is not the knowledge about the world, is not even an act …, it is the background of all our activities which assume it" (Merleau-Ponty, 2001, p. 8). The notions of "intuition", "obviousness", "natural light" gained ever more rich meaning as they developed. But also, the other way round, "none of those notions, in the final sense given to them by history, can be understood without reference to the structures of visual perception" (*ibid*., p. 156).

The movement of a perceiving organism is the ability to make use of the data, in which the process of eliminating definite associations has already taken place. Thanks to that ability, the self-awareness of movement of the organism, as well as the awareness of the moving world, make up a variable whole. Its sense occurs within the phenomena thanks to intuition, which makes use of scanty data. For phenomena to consider movement as their way of life, an object must appear in the awareness, as well as its background, sense, and monotonously running time lived. Intuition finds within such data the basic space-time relations.

Making statements about cognizance, Minkowski claims that it requires a certain change, taking a step back, assuming an attitude which is far less rational than the traditional scientific attitude, yet demanding a renewal of "contact with life and with what is 'naturally' primitive in it, which entails here the return to the primary source, from which not only science flows, but all other manifestations of spiritual life" (Minkowski, 1970, p. 5). In this suggestion intuition occurs as object and study method at the same time, which is close to Bergson's interpretation of intuition, in which Bergson assumes that a vital part of human life is not embraced by discursive thought. Numerous direct data related to awareness belong to this part (Minkowski, 2002, pp. 126-128).

Minkowski's ideas lead us in this case towards research method and intuition, which is far less rational

than would be required by Husserl, who – although opposing the claims of positivists, concerning having the only rational method of learning – projects philosophy in the place where the *Ego* of the subject "reaches the most profound, the most universal understanding of oneself; it is the that is the carrier of absolute mind, which pursues itself" (Picon, 1957, p. 60).

In a certain part of Minkowski's works, mainly in his works concerning psychopathology, the idea emerges that rigors of rationality are attained in a sufficient degree in the program of eidetic intuition. According to Husserl, it constitutes but a basis of transcendental methods, validating the sense of transcendental phenomenology (Husserl, 1982, p. 105). Cognition, according to Husserl, uses a structure, which is a necessity conditioned by essences. Husserl sees no obstacles that would prevent cognizance that reaches the non-falsified visual data from starting with this specific world. In this cognition we make reference to pure intuition, which captures the hard facts a priori (*ibid*., pp. 206-207). Such intuition refers directly to the problem of time and space, thus in one of its variations: to the movement of corporeal self, which happens in the surroundings of other bodies.

THE EXPERIENCE OF TIME

The analysis of the notion of time was among the most import ant topics of philosophy and phenomenological psychopathology (Fuchs, 2010b, p. 75). It led Husserl to the conclusion that a moment that has just passed is still somehow experienced. Husserl spoke about retention being such a case. At the same time, at the present moment awareness refers to the nearest future. Husserl referred to this aspect of experiencing time as to protention. When we listen to a sentence, we anticipate protentially the sensibleness of its conclusion. Thus, the sense which has just passed gets connected – via retention – with the expected sense in one act, which creates the present. Those split second moments of awareness, occurring one after another, are reflected in perceiving and self-awareness of movement, the sense of which is contained in direct memory and direct anticipation. The passage of time happens, as a result, between retention – now, and protention (Husserl, 1982, 1989).

Man experiences time and space in different ways. One can anticipate events that are distant in time, one can image distant spaces. The present is less easy to grasp than what we at present refer to as the past and the future. For example, I know that yesterday inevitably belongs to the past, whereas tomorrow belongs to the future, equally inevitably, yet their inevitability is of completely different nature than the status of the present.

Husserl also tackles the issue of time as a certain form of the problem of intentionality and transcendental Ego. In the phenomenological epoche it strengthens the correspondence between real and pure experience (1982, p. 39). As a result of applying the method of phenomenology, we obtain the description of an intentional subject, determined by the states of awareness attributed to it, and *modi* belonging to those states, for example being something past, present, or future.

Time lived according to Minkowski

Phenomenologists distinguish between objective physical time (abstract one) and time lived. The former is subject to objective measurements, and in common awareness it constitutes, similar to space, an objective environment for events. The lived time is of different nature. The pivotal notion used by Minkowski in its description is *le devenir*. This equivocal notion, which stands for change, dynamics, and contact, signifies the way of living for temporal phenomena of awareness. The English-speaking authors translate *le devenir*, as becoming (Spiegelberg, 1972, p. 245; Metzel, 1970, p. 13 and following).

Minkowski (2002) used that notion as early as in *La schizophrénie* in those excerpts, in which he attempted to describe the relation of awareness to the dynamics of evolving reality, and the phenomenon of creation. This relation occurs when the personal work of an individual – once finished – expands, causing the establishment of contact with the environment. We then notice "the need to connect with reality anew, penetrate it, gather strength, agree for a moment of rest, which is neither idleness nor passivity, nor a temporary intermission in work, advised by mental hygiene, which is –on the contrary – rich in content that is vivid and bustling, we allow the tides of *le devenir* to rock us, we quench the thirst [drinking] from living springs, we taste the sublime feeling of being with it," then the personal momentum wakes up again (Minkowski, 2002, p. 182).

Analyzing *le devenir*, the French psychopathologist studies what belongs to the areas of experimental psychology, developmental psychology, and psychopathology (*ibid*., pp. 11-38). The arguments from those fields are developed in separate parts of various dissertations, or in separate works (Minkowski, 1968, 2002, pp. 161-407). Although the conclusions from those studies are much differentiated, yet the phenomenological work discloses that time stands behind all the data. Frequently, though, it is time rationalized and set in space, understood as a kaleidoscope-like sequence of events. In awareness, however, it is always preceded by the lived time. Projection of the entire psyche to objective time is a means of psyche's striving for assimilating „"by all sorts of means with the material *le devenir*" (Minkowski, 1968, p. 15, 1970, p. 17) Minkowski states.

The image of lived time does not resemble life that happens in physical time. Or, in other words, the phenomena, which flow in time, always contain it in themselves, or remain in relation with it. Such phenomena as hope, desire, or recollecting the past refer to representations of the future, and are reflected – as if in a mirror – in the phenomena of lived time.

”Time is becoming” (*le devenir*), Minkowski ascertains (*ibid*., p. 15, 1970, p. 16), and at the same time adds several notions to that statement, each of which being as ambiguous as the statement itself. Time manifests itself, passes, escapes – never to return. Minkowski presents *le devenir* in the form of a wave, which – encompassing everything – leaves no stable possibility of making a definition or judgment, has no parts, objects, or topics, is the synonym of life in the broadest sense of that word (*ibid*., p. 16).

Time is a vital phenomenon that is ever-present, primitive, very close to an individual, closer than the events happening in it. It is easier perceptible, as in awareness there are no thoughts or particular acts of will, it cannot be comprehensively described by thoughts, though. It slurs and blurs the borders between *Ego* and non-*Ego,* embracing its own and worldly *le devenir*. The *Ego* is dissolved in time, yet it does not experience unpleasant sensations, common in the case of losing the integrity. In such a case, denial of the *Ego* takes place, without the feeling of relinquishment.

The phenomenon of *le devenir* lies at the basis of the – always present in philosophy – thoughts about the ontological nature of change. Minkowski's description concerning *le devenir* inevitably leads to the conclusion that every discursive thought is in opposition to becoming. We are not able to express it, as it cannot become the object, being too close to the subject. It does not correlate with anything stable, that can be experienced. Analyzing time (*le devenir*), Minkowski wants to avoid being accused of irrationalism, resulting from demonstrating merely the negative properties of temporality, and assures that “becoming” is unavailable for knowledge, not because it is beyond it, but because it is given with obviousness. Its irrational nature proves that time is contradictory in itself, and – when studied only from the logical point of view – it becomes a pure nothing (*ibid*., p. 20).

Looking for a method to define time, Minkowski wanted to remain within pure temporal phenomenon, yet he also had to take into account space, the phenomenological status of which was unclear for him. Time, presented with space, when becoming an image is transformed into a space-like kaleidoscope phenomenon, that is a series of static images. When we try to present time, we inevitably move to its kaleidoscopic image, which adds space to time (*ibid*., p. 22) . Not being able to ignore this constant relation between time and space, Minkowski comes to the conclusion that they are strictly interrelated in the idea of time-space unity. Moving about in everyday experience, man instinctively assimilates time to space, if they were totally different the assimilation would not be possible, yet it happens and may become full of meaning any time.

Minkowski distinguishes various phenomena in the lived time, for example: sequence, continuity. The “now” time contains the phenomena of biographical memory that take part in anticipating and forecasting the future, as well as ways in which the environment may influence an individual, among which work – so important in the treatment of disorders – may be indicated (*ibid*., pp. 265-355). The time lived is not available in introspective manner, yet it constitutes the basis of time common for various kinds of awareness. The normal dynamics of time experienced contains smooth and intuitive contact with reality, in which the continuity of the stream of consciousness is maintained; loss of that continuity, that is losing the life-related contact with reality, entails the onset of disease symptoms. Death gives the shape to human time (*ibid*., pp. 121 -137).

Minkowski analyzes the – specific for definite disease entities – modifications of structures of time lived (*ibid*., p.298) and refers to such analysis as to phenomenological – structural one (Minkowski, 1999, pp. 551-601). Symptoms of disease are, in those studies, a philosophical interpretation of psychiatric theories (Minkowski, 1968, pp. 255-366). The French psychiatrist describes manic-depressive conditions, depressive and hypomania conditions, returns many times to the – seemingly terminated – trains of thought, presents various problems from various perspectives, supplementing the otherwise rich content of his psychopathology. A good example of the complexity degree of his works is the analysis of the notion of schizophrenia. Having devoted a separate publication to schizophrenia, in *Le Temps*… Minkowski supplements the first image with a particular way of functioning of an individual in ‘me-here-and-now’ (1968, p. 72-121), which entails its internal spatial-temporal unity, and the analysis of which has been extended by the repeated study of the notion of syntony, or in other words the ability of an individual to create a vital contact with reality. The background of this contact is sympathy understood by author in the etymological sense of the word (*ibid*., p. 61).

This is not all, however, as a chapter devoted to schizophrenia can be found in *Traité* (Minkowski, 1999, pp. 125-154). There, for example, Minkowski also has examined the modified structure of moments of paranoid consciousness which is a requisite of the world “beyond”. It is also characterized as the area, in which the vital phenomena of life have been ruled out, such as chance or unpredictability. The entirety of events and changes of this world is located in that structure, gets polarized in its enmity, in the form of hostile masses directed against the patient; with the affective factors that have features in relation to the environment, the game of positive and negative feelings takes a less prominent place in that hostile world (Minkowski, 1999, p. 762).

The concepts of both the French psychiatrist and his direct successor and friend, Ludwig Binswanger, are *ex definitione* humanist and qualitative. At the same time, they definitely excel in philosophical culture, in comparison with many other theories of humanist psychology. To conclude this part of the paper, one needs to justify the location of the concept of time according to Minkowski in the chapter concerning psychology, not psychopathology. There are two reasons for this. The first is less signifi-

cant. It is simply good to put together the thoughts of the author to whom the paper is devoted. The other reason is essential. Namely, in Minkowski's concept it is hard to separate pathology from norm. In this point I do not agree with Metzel (1970, pp. xix-xx). I shall come back to that issue.

Also, it is impossible not to draw the attention to the fact that the way Minkowski formulates his thoughts may exquisitely hinder their understanding. There is the lived time and becoming, the time lived is "becoming", and "becoming" is time. Yet, time seizes the experiencing of individual and cosmic, *le devenir* (*ibid*., p. 17). Time cannot be properly expressed in its existence, which is not testified by an opinion, perception, object or subject, which does not have a substrate and is different from a physical one. Also, *le devenir* is inscrutable in the same way. It happens that Minkowski, in a single paragraph, begins to talk about time experienced, and ends with *le devenir*, or vice versa (*ibid*., pp. 16-19).

Primary space according to Minkowski

The issue of space illustrates well the struggle of the French psychiatrist with unmanageable notions. In the first edition of *La schizophrenie* (1927) Minkowski writes that reality may be perceived as variably – fluent, or stiffly – unchanged. The other way of perceiving the world is pathologic, and is reflected by the notions of"sick rationalism", or" sick geometrism". In *Le Temps vécu*, published six years later, the perceived reality is – by nature – either stiff or dynamic in an apparent way. It is described by such notions as "kaleidoscope" and "making time spatial" (Minkowski, 1968, p. 15), while "in all studies aiming at penetration of the inner nature of time, the idea of space occurs at the basis, as an obscure yet inevitable participant" (*ibid*., p. 20). Three years after that, Minkowski published, for the first time, *Vers une cosmologie* (1936) in which – when providing the characteristics of reality – he comes even closer to subjective categories of phenomenology. The definition of that reality does not appear *explicite*, it is known however, that it is of experiential type, and… is primary for the physical one. This space can be experienced in two ways: as a result of change of place and object of perception and thoughts.

Man is able to register – by means of senses – the movement of train, when he does not move. When the train is out of sight, man can imagine its movement. The basic way of experiencing space, then, is to imagine a change of place. Experience understood in that way is the common structure, in line with the common conviction, Minkowski states.

As a matter of fact, if the process of experiencing movement is to be treated in line with the assumptions of associative psychology, then the information about movement is obtained in impressions, while we imagine it in ideas (Hume, 2004, p. 13). Movement is perceived as a sequence in which impressions and ideas occur in awareness. Minkowski claims, however, that such mosaic-physical successions of impressions and ideas are kneaded together by the factor of experiencing, which creates a new reality. In this case, one space exists, which as a whole is established in such a way, as in every position of objects in physical space; the factor accompanying it is the subjective awareness of the subject.

Substantialization of movement, or the activity of senses, are of secondary importance in experiencing this space, as its substance is about accompanying external objects, lined with sometimes very violent emotions. In this space sight and imagination may follow a moving object, as it increases its distance from the observer.

Moving about in physical space happens when a moving image is accompanied with an experience. In such a space, in which"soul sets itself in motion" (Minkowski, 2010, p. 104), not only material objects move, but also feelings and desires. Primary space is neither a subjective aspect of physical space, nor its simple representation, as it contains a particle of the spiritual 'I' (self) of the observer. In an experience taking place in such space, there is no division into emotional, rational, and other factors, as the entire soul follows the object of perception in it.

Minkowski agrees that "the concept of thoughts, desires, or souls moving in space seems difficult to accept" (*ibid*., p. 106), as it is opposed to a certain force of habit of the awareness to treat material movement as the pattern for all kinds of movement. However, the movement of bodies is one of many movements and spaces. It can be described quite well, yet it should be remembered that being in space does not have an external subject, but"generates itself the space, in which it stretches" (*ibid*., p.105). We perceive movement first of all in the form of material objects moving. After rejecting what is not important in the phenomenon of movement, it ceases to be translocation in geometric space, but instead becomes glimmering in the"dark throng" (*ibid*., p. 106) of survival space, which is not given objectively, but develops as we travel through it.

Minkowski points out that space is generated by awareness. For example, the principle of relative size of objects in geometric space is derived from the rudimentary ability demonstrated by awareness, to magnify objects to any size, by the use of imagination. This ability has at its base the operations that can be performed in basic space, which corresponds to experiences and includes: the rising of acts, intensity of feelings, and extent of knowledge.

PSYCHOPATHOLOGY

PERCEPTION, INTUITION

As mentioned above, Minkowski, after Bergson, sees material reality as variable and dynamic, in ontologically primary, incessant change. Shortly, "reality is movability" (Bergson, 1963, p. 51). It results from above, that there are certain forms of awareness, which do not have direct access to the variable world. Minkowski is

a representative of the school of psychiatry, in which they recognized the existence of gradation of symptoms intensity, from the least profoundly marked to those in disease (Minkowski, 1957, 2002). If the assumptions of that school were to be marked on a grid of notions, which can be found in Minkowski's papers, one could conclude from his works that this – inadequate variable reality – state of awareness occurs with various intensity. For Minkowski, science and pathology understood in positivistic way were the steps to miss-adaptation of awareness to the world.

The first stage in the development of immovable images are changes in perception. Using the functions, the basis of which is morbid rationalism, an individual renders variable reality immobile. Measurement is an important cognitive action performed within common sense. Measurement is simplified when the measured reality is immobile. In turn, in order to implement a project of exerting total control of the world (a project which is doomed to fail) man wants to study the world completely in scientific fashion, and taking accurate measurements is an introduction to it.

Accomplishment of such an aim calls for "immobile" world that is the world which allows measuring the dimensions of the studied object in finite time. It is obvious that an object which is infinitely changeable in a small section of time may not be studied completely in a limited time. That is why the intellect "cuts out" static images from reality (Bergson, 1963; Minkowski, 1968), which makes up a kaleidoscope of static time-space images.

As I indicated scientific procedure and common sense sometimes require "freezing" (immobilizing) elements of an image, in order to assess their spatial dimensions. It may happen that awareness, gradually petrifying the entire image, starts to treat analytically various elements of the background, hitherto mobile, for example: moving branches of a tree, clouds in the sky, as well as enormous amounts of various other objects. This leads to immobilization of the entire background. In his classical work on schizophrenia Minkowski (2002) gives a description of how awareness creates immobile reality.

When rationalism begins to dominate over the entire human life, intuition vanishes from perception (Minkowski, 1999, p. 655, 2002). Scientific analytical perception creates an immobile world as a working version for the purpose of a provisional measurement. Immobile space initially appears in visual perception, detached from other perceptive data. Their objects become unchanged, and can be described in the categories of geometry and mathematics; they can also be – at least more or less – measured. The sense of sight, dominating in man, allows for some time to perceive space as passage of time. At the moment when human life starts to be shaped by morbid rationalism, this ability also dies out.

The process of perceiving becomes pathologic, when the intellectual geometry-math's oriented way of seeing the world enters the everyday contact of man with reality (Minkowski 2002). A healthy individual, walking incessantly assesses the distance to the destination, obstacle, or velocity of the movement. An ill individual has gaze focused in a very close distance, in the space that cannot be reached in protentially foreseeable time.

ATTENTION AND AWARENESS OF MOVEMENT

The considerations concerning movement, based on Minkowski's philosophy, begin with ascertaining the necessary relation of time and space. Let us refer those statements to some aspects of Parkinson's disease. They emerge relatively early, in initial stages of the disease, and begin with introspective noticing some – initially slight – dysbasia, which, due to the already mentioned co-creation of much action by means of walking, results in various effects. Soon, increasing difficulties occur with assessing the distance and time necessary to reach the target of action. Having lost control over the assessment of distance remaining to be covered, man begins to struggle not with the distance he has to walk, but with doubts concerning her/his assessment of the possibilities of making the suitable movement. Problems with perceiving one's own movement imply difficulties with assessment of all space-time parameters of human walking.

A patient may ever more rarely cover a certain distance smoothly and automatically. With the attention ever more focused, the patient examined road sections to cover. S/he assesses every movement in radically opposed categories of bad or good; for example – too long a step, or too short a step. Such a person my control steps better or worse, but is not in control of the *apraxias*, escaping visual perception, which – from the point of view of the purpose of walking – are completely deprived of sense. The incessant attempts to master proper assessment of distance in movement are related, in such a person, with two moments of awareness: efforts to wrestle with time and space in a smooth and intuitive manner, and attempts to control the proper measure (distance), adequate for reality from the point of view of life dynamics (Minkowski, 2002, p. 130). A certain patient once told me about the reality well organizing the range and time of movement:

It is a pity that reality does not consist of stairs, which are so well measured, such a measured reality is easy to master, if I could create reality, it would consist of stairs only.

A healthy man controls the rationality of his movements, due to the possibility of reaching the assumed goal. He does that most frequently without the self-awareness of control, having the feeling of making a free choice and being under no pressure in walking, which would be exerted by specific habits of movement, that have been developed. Rationality of movement changes radically in borderline situations. A man who got burned or scalded often leaps so makes movements which are not sensible. A person with disturbances walks in a way,

which can hardly be labeled as ones that allow to approach a destination. Those persons isolate steps, so that they are well measured, not having the ability to use an adequate measure, yet willing to restore the freedom of movement, walks like a duck, takes steps a stork would take, etc. Having lost the possibility of controlling movement, such a person creates the reality of absurd acts.

Sometimes I cannot take a step I want to take, my legs tremble, my whole body is getting ready to make a movement, which does not happen.

The act of joint experiencing time and space takes place in perceptibly controlled free movement, focused on a destination or purpose. An ill person, being right not to trust the perceptive assessment of space-time parameters of movement, still takes decisions despite the lack of trust, decisions which are wrong anyway, as to when to start and finish a movement, the time of which has been broken in protention – continuation of sense. Attention is biased, thus it is focused on possibly negative consequences of failed movement, which fails because of this focusing.

PROTENTION AND RETENTION

The acts involved in walking change more or less rhythmically in time and take place in a more or less uniform space. Human beings change their bodies' location in relation to a place of destination. This aspect of movement is easier for human beings approaching their aims. The second aspect is more complicated. It means a subjective method of the measurement the distance to the task of movement and indispensable time to reach it. Knowing their possibilities human beings can predict when and in what way they reach their aims. While walking human beings perform body movements. Their legs as well as balancing hands change the directions rhythmically, relatively opposite to the direction of other limbs committed in movement. At the time when one leg moves forward the other one acts back.

A step reaches its critical condition when one leg begins to move back. In other words, the direction of movement is changed, while the general "forward/front" tendency is maintained. At the same time, the other leg changes the direction of its action for a forward movement. Both in the former case the change "front-back" and in the latter the change "back-front" take place in such a way, that, for both legs, retention and protention happen simultaneously and contain contradictory elements. At the same time in protention one leg makes the movement front ⇦⇨ back, while the other acts opposite: back ⇦⇨ front. The same situation takes place in retention. The walking is a mosaic of interchangeable retention – protention work of awareness which is accompanied by the back and front steps.

Awareness can cope with this contradiction only through comprehensive feeling of the sense of movement. However, it is possible only when there exists one of the"now" moments, in which there is neither protention nor retention. In the situation of movement continuity, the moments of front-back transition do not have clearly defined limits in physical time and are not registered in it. Smooth walking is assured by the fact that perception fails to notice the"holes" in physical time, the flow of which is a result of temporality maintaining continuity.

An ill person loses the synthesized flow of time experienced, and then the smoothness of movement, trying to regain it such person incessantly experiences non-existent moments in her/his observation of time and space, as they are contradictory and limited to steps "only forward", followed directly by movements "only back". In awareness there is a particular aptitude to "get switched off" in a situation where immediate past and future occur simultaneously. This aptitude disappears in ill persons, a consequence of which is the disturbed continuity of space and time experienced.

My actions get incessantly shorter and shorter, yesterday I had to attend a name-day party, to do it I had to dress, but in order to dress I had to put my shoes on, those ever shorter images are an ever bigger challenge for me. The shorter steps the better but very short steps mean very long walk.

As mentioned above, ill persons try to anticipate movement by creating a series of separate and unchanged images, while simultaneously they incessantly assess the indispensable length and time of taking a step. The uncertainty of those assessments results in steps being continuously shortened to safe lengths. This process ends with movement in one spot (feet stamping), which manifests the base sources of disturbances of retention and protention, as well as the inability to synchronize the time-space experienced with the physical time-space. Walking lined with fear, isolated, marked with falls, consisting of separate module, conquering space and at the same time remaining in one place, begins to dominate the life of an affected individual. In *La schizophrenie* Minkowski (2002) describes the categories, by means of which an ill person immobilizes an object in perception B. In Parkinson's disease, an individual attempts to create a world that would be safe for that individual's movement, and in a way digs into reality, creating ever more detailed images.

As a result, a vital symptoms of Parkinson's disease is the disturbance of intentionality (sensibleness), manifesting in an individual's experience by the feeling that goals of movement are not achieved, that is they are not attained by suitable motor activity, in a suitable time and mood. The fear, which results from incompatibility between the aspirations of self and corporeal possibilities of a patient, incessantly disturbs the continuity of lived time. A consequence of losing the sense of action is the degradation of the person's activity in the social space surrounding that person, which gradually gets transformed into degradation of inter-subjective time.

FINAL REMARKS

Manifestations of Parkinson's disease occur and/or suspend their strength, and/or temporarily become milder in various periods and spheres of life of an individual, with a general tendency to deteriorate. A psychologist has little influence upon those symptoms. Awareness, in intentional acts, builds up sensible relations with objects. If the basic experience of time and space is not in congruence with sense, the patient may not efficiently execute any sensible movement, the Brentano's intentional inexistence is disturbed, while the world becomes only reflected, and ceases to be personal.

There are mental disturbances which become materialized in the corporality of an individual, through which temporality is manifested (Merleau-Ponty, 2001; Fuchs, 2010b). Kapusta (2010, pp. 330-331) claims that corporality is primeval and descriptive for phenomenological work of abstract thinking. Disturbances – derived from corporality – of the sense of time and space (depression, Parkinson's disease, schizophrenia) have their origin in the basic incompatibility between self and reality of phenomena, which in Parkinson's disease occurs in being deficient-in-time. In connection with that, one has to take into account the arguments of Fuchs (2010b), which direct the reader's attention to the affective equivalent of drive.

In Parkinson's disease, corporality, "older" than psyche, makes the patient incessantly face social challenges s/he cannot cope with. Persons from the patient's social surroundings formulate objective instructions addressed to them, assuming that those instructions are accepted by the people who – in line with their will – take decisions about sensible motor activity behaviour. In the above sequence, the middle part is faulty, as patients are unable to take independent decisions concerning the execution of movement in the world, the image of which is false in their awareness. The sense of freedom related to motor activity determines the standards of assessment, according to which there is a sphere of free movements, in relation to which the fact that a free man may not do what s/he wants to do appears nonsensical.

The driving – psychological factor in case of Parkinson's disease is the unpleasant sense of vegetative tension which generates anxiety. The aspirations of the patient's ego, her/his energy capacities, and erroneous cognitive interpretations of failures experienced are in continuous contradiction with the continuity of hidden time. On the other hand "to understand is to experience consistence between what we intentionally refer to and what is given, between intention and execution, while the body is our anchor in the world" (Merleau-Ponty, 2001, p. 164) . A patient suffering from Parkinson's disease seldom forgets about anxiety, and focuses upon various activities, so her/his time experienced does not flow in its regular rhythm of "now". As has been mentioned, good structuring of space prevents the patient from trying to control it with her/his destructive attention, while her/his movements are smoother. A health individual feels better in a reality which gives her/him more freedom in selection of means of movement.

Parkinson's disease calls for applying the notion of sense in therapy, which notion is basic one for phenomenological analysis (Frankl, 2002). The remarks of Merleau-Ponty, concerning corporality as a necessary component of the presence of man in the world, belong to the canon of phenomenological understanding of an individual (Merleau-Ponty, 2001, pp. 117-169; Kapusta, 2010). This canon contains also the idea that in the intentional arch awareness transfers the memory of past events into a project of the future. A patient in advanced stage of Parkinson's disease transfers the recollection of a body moving as a result of incessant and ineffective commands. Parkinson's disease is the situation described by Platon in which the body is the prison for the soul (1958).

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