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Selected Philosophical Concepts of Time and their Usefulness in Ageing Research

[...] time either does not exist at all, or is a general and unclear concept. Aristotle, *Physics*

I am the force that imagines the greatest treasures of admiration and happiness in longing and strives to make them come true, but is ready to relinquish them for the very possibility of survival. I am a force that stands in adversity when it feels and knows that by its free deed of non-existence, it will evoke what remains after it, when it is already burnt out in the struggle. I am the force that wants to be free. And will even sacrifice the constancy of its freedom. Roman Ingarden, *Ksigżeczka o człowieku* (Little Book About Man)

<u>A B S T R A C T</u>: The interdisciplinarity of social gerontology encourages the use of the achievements of various sciences, the instruments of which may be helpful in deepening the knowledge about old age. In this article, the proposed source of inspiration for research on old age becomes the category of time. It shows the basic meaning of this category in reference to philosophical thought, its current use in research on old age. The review has a character signaling philosophical contexts, without embedding these concepts in the contexts of the history of philosophy. In addition, it is detailed in areas and questions which can inspire researchers on old age to use the category of time as both research canvas and interpretation canvas.

KEYWORDS: Time, old age, philosophical categories in social research, aging.

Introduction

In the area of old age analyses, it is necessary to use interdisciplinary studies to illustrate this social phenomenon. In the world of gerontologists, the diversity of older people, their uniqueness and variety in terms of lifestyles, needs, expectations, opportunities, health and other possible characteristics of these age populations to be studied, has become obvious. The need for interdisciplinarity in old age research becomes an opportunity for those sciences and disciplines of knowledge which either have an inherent characteristic of universalism (such as philosophy) or contain many interdisciplinary references (such as pedagogy, sociology or social work). For the purposes of these considerations, the origins of sciences as such were used and it was decided to analyze the conceptual apparatus of philosophy from the point of view of its usefulness for research on old age.

Conditions for inspiring the process of cognition of old age are created by various philosophical categories, including memory, dealt with by Plato, Aristotle, Cicero, St. Augustine or Thomas Aquinas – to remain in historically distant times, in which most philosophical terms were still crystallizing for further historical discourse. For research on old age, another useful category may be that referring to the body, resulting directly from Greek materialism, and therefore a more contemporary category of face, for example in the works of Friedrich Nietzsche, Hannah Arendt, Jean-Paul Sartre or Maurice Merleau-Ponty. The category of meeting, developed quite extensively in the thought of Emmanuel Levinas, and in the Polish philosophical output by Józef Tischner, undoubtedly announcing inspiring reflections on the relations created and used in old age, should be mentioned as the next one. All of the categories indicated are so deep, encouraging reflection and offering a detailed analysis in the context of research on old age, that a separate article could be devoted to each of them.

However, for the purposes of these analyses, the category of time - one of the most basic ones in the context of gerontological considerations, has been chosen as immanently embedded in the approach to old age as a stage of lifetime. The temporal context is an integral part of human life, whose boundaries, milestones and content are fully realized in a temporal perspective, defined in the concrete form of days, months and years of life.

Time itself, however, is not an obvious, homogeneous aspect, thus creating the possibility of a multithreaded analysis of old age, which is inseparably correlated with time or happens. Already the determination of its initial boundary or different populations of elderly people is done by marking on the timeline in its linear course. Old age is marked here at the extreme section, treated as "the latest period of life", "the final phase of life", "the last stage of life" and in other, more or less temporal terms. We can find such views of life as passing time in the concepts of Erik Erikson, James E. Birren or Chad Gordon and Charles M. Gaitz (Erikson 1950; Birren 1961; Gordon, Gaitz 1976).

The aim of the author of this text is, on the one hand, to highlight and emphasize the importance of the relationship between old age and time, also in reference to the most basic reflection on this category, which is philosophical reflection; on the other hand, the aim of this article is to propose assumptions for research on time in old age, by distinguishing specific areas of time in the life of elderly people, and thus also to collect research proposals assigned to each of these areas. This is to be the starting point for a discussion on a research project inspiring research into old age in a temporal perspective. It should be added that the review of philosophical concepts due to the rigor of volume will be selective and causative. The intention is to specify the category of time through the description of possible meanings of time, and thus to attempt to create subcategories of meanings of time within the universal understanding of time. The aspect of inspiring research on the category of time in old age fulfills the postulate of practical application of conclusions from these considerations.

Philosophical premises for understanding of time for reflection on old age

When one mentions the philosophical premises for reflection on time over the centuries, before representatives of other social or exact sciences started to deal with it, two dominant perspectives of thinking about time - as cyclical time and as linear time – should be shown. The first one is present in archaic cultures and the Greek world, and is closely related to the observation of cyclicity of nature – movement of stars, seasons, biological rhythms. According to a similar understanding of time, events return, nothing happens that has not happened before, the future immortalizes the past and there is no event that will not have to be repeated. In this sense, there is no history understood as a one-off and irreversible succession of unique facts. Periodic cyclicity entails the rationality of events, because each of them has its own justification. This theory is also connected with faith in metempsychosis - cyclical reincarnation of the soul. Treating time as a linear process was in turn created by Jewish culture and then taken over by Christianity. It is based on the conviction that there is one direction of time, and its meaning recorded at birth is to be realized in history. So time has a progressive structure, it had a beginning, because it was created together with the world and is going to its end. In turn, the creator of the temporal world – God – is outside of it, is eternal, lasts before and after time. In this sense, there is the raison detre for history, which – understood as a sequence of unique events - creates in its course eras and modifying human experience, considered in terms of spiritual, social and scientific progress (Ubaldo 2006).

When writing about time as a philosophical category, one should, at least briefly, refer to the historical review of opinions of philosophers who were interested in this issue while building their concepts. It will necessarily be a very subjective review, using the criterion of punctuality, involving several philosophers important for the discussion of time in a given epoch of the history of philosophy.

It is worth pointing out that basically two epochs seem to be the most inspired by considerations of time, namely antiquity and contemporaneity. In this first, covering the period of ancient Greece and Rome, in the initial period of development of philosophy time appeared in the writings of thinkers sporadically. The issues of movement or variability were more often considered and the nature of time was indirectly defined by them, as it was the case in Anaximander, Heraclitus, Zeno of Elea, Empedocles, Democritus (Diogenes Laertios 1988) or Plato. In ancient times, two doctrines collided with each other. According to one of them, time is eternal, just like the principle from which all nature is created thanks to movement (Anaximander) or even more, and time, like the universe, has no beginning, is eternal, and changeability is the basic property of nature. Everything flows and there is nothing that repeats itself on the timeline (Heraclitus). Zeno of Elea and his Eleatic School created the view that time is intermittent, consisting of isolated moments in which not only a flying arrow, but also the whole world are motionless. (Diogenes Laertios 1988, p. 551). Attempts to reconcile these discrepancies were made by Empedocles, who proposed an image of the world composed of four elements (water, air, fire and earth), which are set in motion by two forces - love and disagreement. The history of the world is cyclical - in the first period the elements remain in rest, so time does not flow, then there is a period of disagreement, leading to chaos, i.e. the state of mixing the elements, and this crowns the period of love's action. In turn, from this period time returns to the first stage - the resting of the elements (Diogenes Laertios 1988, p. 497-498).

These preliminary theories prepared the moment of the emergence of two great systems of ancient philosophy – the thoughts of Plato and Aristotle. The first one was convinced of the usefulness of time, which exists to make the world similar to eternity. This concept is circular, based on the assumption that the history of the world consists of eternal returns. There are, however, temporal beings, such as eternal ideas, unchanged in time, are a point of reference and access to the whole reality (Plato 1993; 2010).

In turn, Aristotle defined time as a physical concept - the quantity of motion – because of what was earlier and what was later (as the quantitative side of motion), as a value to be counted, not as a means to this (Aristotle 1990, p. 109–115). Aristotle believed that the most natural and perfect movement is the one on a circle, so it should be used to measure time. It is also an aspect subordinate to the existence of the mind which can calculate it. Time is treated as continuity – a kind of continuum – infinitely divisible (like space), but at the same time infinite by adding.

In the Middle Ages, the cosmocentric theory of cyclic time was replaced by the theocentric linear time, thanks to the concepts of thinkers such as St. Augustine, Avicenna, Averroes, Bonaventure, St. Thomas Aquinas In the Middle Ages time measured by the movement of planets confronted with the time counted by the history of the chosen nation. St. Augustine most distinctly distinguished himself from the thesis of cyclicity, claiming that time is not eternal and was created by God, who preceded any time (St. Augustine 1987). Moreover, the philosopher has moved away from linking the existence of time with movement, because in his opinion the source of time is the human mind, which, through the impressions contained in it, determines the passage of time.

In the tenth and twelfth centuries Arab philosophers (Avicenna, Averroes) discovered the writings of Aristotle and in their commentaries there was a vision of cyclic time, connected with movement and having no beginning. However, reflections on the essence of God, which filled the medieval philosophy through St. Thomas Aquinas, refocused the reflection on time, focusing on linearity. This philosopher, referring to the thoughts of Aristotle, described time as an imperfect being, which does not exist spontaneously, because it depends on the movement of bodies (it is a being potentially existing in things), and also on the counting mind (it is a being formally existing in the mind). Everything that changes and moves remains in time. Importantly, God is excluded from this context as the most perfect existence that does not change at all (Turek 1986, p. 103–125).

In the context of modernity, there are three great concepts, by Leibniz, Newton and Kant, which are contradictory in many respects. All of them, however, had a significant influence on the development of the concept of time in the 20th century, and it seems that the greatest merits can be attributed here to Newton, as a constructor of physical theory. After Galileo discovered that time can be modeled using numbers that will follow after each other, Newton concluded that there is absolute space and absolute time. He claimed that the absoluteness of time lies in the fact that it can be expressed in mathematical concepts, flows uniformly, by itself and this is its nature, independent of anything external – nothing can affect it. He also mentioned relative time, which was a subjective measure of absolute time (Tatarkiewicz 2007).

Newton's opponent was Leibniz, according to whom time is relative, resulting from the coexistence of things. It does not exist in itself, being rather a phenomenon, just like vacuum. For man, time is subjective, and for God it may not be at all. Leibniz claimed that time is only a system of relations ordering processes and events (Leibniz 1969).

The last philosopher of modern times who devoted a lot of time to his reflections and inspired the father of modern time theory Albert Einstein, was Immanuel Kant – the creator of two approaches to time – metaphysical and transcendental (Kant 1957). In his search for a priori factors of knowledge – not data in experience, but necessary for all experiences – Kant considered time, next to space, to be one of such concepts. As he claimed, time is a necessary concept, contained in all sensory experiences. It was a metaphysical approach. The transcendental approach, on the other hand, reinforced Kant's conviction that in order to talk about change and movement, it is necessary to have an idea of time. Time and space are cognitive forms associated with the human mind. As the philosopher from Königsberg writes about time, "it is not a discursive concept or, as it is said, a general one, but it is a pure form of sensual visuality. Different times are only parts of that one time" (Kant 1957, p. 109).

Time as a research category for older people

An element of individual identity of older people is their attitude to time and the way they experience it. The concept of time can be one of the basic categories describing old age as a social, psychological, educational and medical phenomenon. The philosophical basis for the description of this concept led to the development of interest in this dimension of the description of old age by various scientific disciplines. In psychology, quite extensive analyses of the time category affecting the development of human psyche include the concept of Philip Zimbardo and John Boyd (Zimbardo, Boyd 2011), discussed in the

following part of the article, as well as Charlotte Bühler. The latter author postulates the necessity of analyzing human development in the context of the whole life, both from the biological, biographical and objective perspective. The latter perspective is intended to relate to the universal elements common to all people in the course of life, such as taking up and carrying out work, starting a family, running a household, raising children, participating in social life, changing jobs and professional positions, random events and changing places of residence (Bühler 1999). In pedagogy, on the other hand, in relation to the category of time, a section relating to leisure time develops, and with it, closely related to it concepts of recreation, activation of various age or social groups, including seniors and people with disabilities (Pieta 2004). Numerous micro researches related to leisure time management in various age groups, local and institutional environments and methodological approaches are conducted around the issues of leisure time. Similar issues in connection with leisure time are raised by cultural and social pedagogy, and in other sciences by economics, tourism or sociology.

Both younger and older people, invited to reflect on life, often use the time category to describe their reflections. Numerous studies prove that old age is associated with free time, with the possibility of realizing one's dreams, with making up for lost time in terms of pleasure, with a peculiar temporal freedom (for example, Omyła-Rudzka 2016; CBOS 2012). This is, however, an obvious illusion, as confirmed by the analysis of the free time of seniors who, busy with care or education, have no time for anything or devote all of their time to health care, family or other important social life events. Longing for free time becomes one of the dominant utopias in the lives of seniors (but also of younger age groups). In addition, there is a sense of loss of time, awareness of its irreversible passage and all the issues that in research boil down to a discussion on the balance of life (cf. Izdebski Polak 2016; Sygulska 2016; Manachiewicz 2016; Cibor 2008). Life time itself - in the biological and linear dimension - intertwines with the temporal dimensions of individual areas of life. So there is time for professional life with subsequent career levels, achieved in time, family life and its various stages, educational development, with indication on the increasingly popular activities related to late-life learning or finally the time for development of passions and gaining experience in some important skills and talents, and thus a time of pleasure and fun.

The periodization of human life, expressed in biographical theories, is firmly rooted in the linear dimension of time and stretched between the past, present and future of a given person. It can be said that in such an approach to human life, the perspective of time is used as a kind of social microscope, through which one analyses the moment of life, memories of what was, waiting for what is to come, but also the interpenetrating contexts of cultural, social, spiritual, educational, family and other factors affecting man (for example, economic inequalities or health disorders), modifying one's time perspective. This multithreadedness of factors influencing the linearity of life, which may change its course, break the general schemes according to which life is to take place in a generally accepted social and psychological scheme, causes that new and more unique models of life course are being created (Giddens 2001).

Recalling other concepts that can be used, apart from the pedagogy of free time and the concept of the course of life, to describe the temporal dimension of old age, one can quote the already mentioned concept by Philip Zimbardo and John Boyd, according to which the way of interpreting the world and people takes place in cognitive processes referring to time. Every human experience is ordered in relation to the past, present and future. Time is therefore an individual interpretation matrix for human experience. It not only marks significant events on the axis of one's life, but also, over its course, gives these events a different connotation and rank (Zimbardo, Boyd, 2011; p. 20-21). In the final stage of human life, the tendency to analyze the past and the future, which may be related to a closer perspective of the end of life, is particularly emphasized. This leads seniors to an in-depth reflection on their own lives (Bühler, 1999). The ability to modify one's personality, as noticed by Zimbardo and Boyd, may also, according to other researchers, change the ways of adapting to old age (Bugajska, Timoszyk-Tomczak 2012). Beata Bugajska and Celina Timoszyk-Tomczak have also developed a very interesting proposal for a concrete action leading to raising temporal awareness and, consequently, to giving meaning to and taking a positive balance of life by elderly people, namely working with the metaphor of life as a journey (Bugajska, Timoszyk--Tomczak 2014).

Another theory in which the temporal aspect is exposed and forms the basis of the developed assumptions is the theory of gerotranscendence by Lars Tornstam. It assumes that human development is a continuous process that lasts until old age, and during this process man can change the perspective of the world, himself and other people. (Tornstam 2005). Based on the results of his research, Tornstam noted that seniors can perceive themselves and their lives not only in the context of retreating from activity, as the theory of retreat put it, but also in the context of positive self-perception. This involves the redefinition of oneself, the relationships in which they are involved, and the redefinition of existential questions. In the aforementioned research, respondents indicated changes in the perception of time, space, life and death.

They talk about a change in perception of time, space, life and death. They are more inclined to live their inner world, their important relationships with other people, and also feel a connection with the generations of their parents and grandparents. Seniors transcend their previous temporal perspective and redefine the existential issues that are important to them. Without going into details and discussion around this theory, it should be noted that it has a very orderly character of the time perspective in which the seniors function and corresponds to the theories of Philip Zimbardo and John Boyd, as well as Viktor Frankl, Erik Erikson and other thinkers representing the humanistic current in psychology.

Referring to the philosophical approach to time in cyclical and linear categories, one should also refer to the theory related to the specificity of certain populations, related to the cyclical passage of time. It is a theory of a generational cycle by William Strauss and Neil Howe. The theory was developed in early 1990s and describes history as regularly repeating four phases of awakening and crises related to generation types, albeit in different variants, thus capturing the development of societies in a cyclical rather than a linear context. According to this theory, each generation is specifically related to its childhood and youth. It is the common experiences, the way of life characteristic of a given time, the cultural and social context that determine the belonging to a given generation and create various types of obstacles to experiencing any changes in customs that occur after that period. Joint experiences and dramatic experiences, such as wars, cataclysms, extermination and other social traumas, lived through together with other representatives of one's own generation, have a particularly strong impact. These experiences, especially those related to childhood and youth, shape a common image of the world, the way of interpreting the experienced events, and also set the given generation in dialog with the previous generations. This is the source of the ever present and insurmountable intergenerational conflicts that arise from the wave of protest and the need to change reality. Strauss and Howe note that human societies are developing cyclically through the recurring four types of generations - generation associated with rise, awakening, disintegration and social crisis. Social development develops through the exchange of these four generational types and is an indispensable feature of social development, so natural as the cycles of change of seasons or human development cycles (Strauss, Howe 1991). The authors emphasize the temporal dimension of the interpretation of individual human destinies on the one hand as belonging to a given generation and, through the prism of this belonging, explaining the acceptance of values, principles, experiences and the image of the world;

on the other hand, temporality is exposed in the recurring cycle of social development, which takes place in a quite inevitable way; finally, temporality is emphasized in the context of intergenerational relations and conflicts, i.e. in perceiving the temporal differences in the perspective of another age group. The presented theory is a rather important context for the interpretation of all research on old age, a kind of interpretive background to every statement of the seniors regarding their life.

I would like to conclude the review of research theories that are useful in interpreting temporality in research on old age with a reference to the Polish philosopher Roman Ingarden, who in the 1930s published an article on man and time (Ingarden 1998). The author distinguishes two different approaches of man to time. In the first, we recognize that what really exists is us, and time is therefore a derivative and ephemeral phenomenon. The second approach recognizes that time and its transformations are the only reality, while man passively undergoes these transformations and is annihilated during them. The consequences of accepting each of these assumptions lead to radically different metaphysical opinions and may lead to different attitudes towards, for example, aging.

On the one hand, we are dealing with the recognition that man, like the world in which he lives, is a finite, shaped entity, on whose external events, relations, interactions have no influence, as long as he maintains his psychophysical structure as coherent and undamaged. The world and other people are only a certain phenomenon, and as a subject of perception I am constant and unchangeable in time. In relation to time, man reigns and overcomes time by maintaining in existence what has already gone with the past. Such an approach of man to time is strongly determining the present through past events. As Ingarden writes, the past enslaves the present, a man lives "as if what is past had not passed, as if there was no time" (Ingarden 1998; p. 47)

In the second view, man is a dynamic entity, changing in time, but not fully ruling over it. Time is destructive for the existence of man, and man in time only becomes, constitutes, transforms himself. Human life is fragile because, as Ingarden writes, "the existence of what is real does not come from its essence and is not necessary" (Ingarden 1998; p. 49). Man constantly fills up a new phase of time and only in a limited period of time does he exist, he lives between what is no longer there and what has not yet appeared. In this understanding of the relation between man and time, it is important to become aware and unquestionable of one's existence by becoming aware of one's existence so far, i.e. through the prism of the past. Only through it, through "living remembrance" man reveals to himself who he is. Ingarden stresses, however, that the interpretation of past events and thus the content of one's own identity may also change over time.

Ingarden does not decide which of these approaches is appropriate, although he analyses the conditions for the truthfulness of each of them, but he reserves that he does not have such a research device at his disposal to resolve the issue of man's relation to time explicitly. What he certainly says, however, is the presence of a close connection between these two different ways of experiencing time and the issue of the existence and essence of human personality. Using these concepts, Ingarden presents strategies for decoupling from time or disintegration in time and concludes that "time is a derivative phenomenon, depending on the behavior of a person and, more generally, on what exists" (Ingarden 1998, p. 67). For research on old age, Ingarden's concept can be inspiring because of the dynamism of the relationship to time contained in these two extreme approaches to time. The consequences of each of them influence the degree of readiness to transform the world, to transform one's own life and to give meaning to one's own existence, especially in the perspective of studying old age, which makes it possible not only to look at past life, but also at the way of perceiving it in time. The context of temporality, approached in an Ingarden's way, creates premises not only for a biographical approach to seniors' experiences, but above all for the reconstruction of hidden attitudes, opinions, beliefs and values. In this sense, old age is a form of dialog with the life of the elderly at a more in-depth level of inquiry.

One can say that an individual's life time is an open time, a peculiar game of events, meanings, memories and expectations, as well as a game of impressions embedded in the present. It is fascinating that man is so entangled in the multi-layered experience of time, starting from that already experienced, closed in the past, but still reinterpreted, remembered or forgotten, through that future, full of hopes, expectations, fears, dreams and plans, to the least tangible time, present and immersed in the experience of life. In this multiaspectivity, the already mentioned category of memory, whose close relations with time should be signaled here, may play an extraordinary role. The complexity of human temporality, especially in the experience of the elderly, and its unobvious chronological nature can be interpreted by referring to concepts derived from philosophical thought.

Inspirations for research

The research inspirations to be used in showing the temporal perspective of social and individual functioning of elderly people, should, according to the title of this subsection, be treated as inspirations, which means marking a starting point for creative processing of the proposed research areas and their detailed specification in the form of research questions. This is an author's proposal, often more structuring than original, which aim is to encourage the reader to reflect, discuss and modify specific areas and questions. In addition, it should be noted that the separated research areas should be understood not as strictly separated among themselves, but as overlapping in some areas, creating one temporal universe. This leads to the interpenetration and similarity of research questions between different areas. Often the simple and obvious formulation of research questions is intended to organize the area in order to lead to more hidden and original ideas for clarification in the research reflection process. Of course, this part does not refer to any literature on the subject and should be treated as an original idea, which was born under the influence of theoretical considerations of the issues described in the previous subsections.

Research into old age, which aims to highlight the diversity of the elderly, should take into account a variety of variables, indicators and interpretative categories. Ideally, the categories themselves are very diverse in themselves. The philosophical category of time adopted for the purpose of this analysis meets the criterion of diversity, because the following areas of meaning can be distinguished in it:

- Objective time the course of life;
- Time spent/filled;
- Subjective passing and feeling of time;
- The perception of the present and the future;
- Time wasted;
- Time denied;
- Time gained/regained.

Below, the individual areas will be characterized and research questions will be proposed, which can be detailed in a given area. The first of them – the area of objective time – the course of life – includes the biographical dimension of the examined senior. It analyses both the past and the present, as well as the imagined, expected future. Forward-looking analysis in the context of older people can refer to research and proposals for the practical application of research results through the concept of workshops for seniors by Beata Bugajska and Celina Timoszyk-Tomczak (Bugajska, Timoszyk-Tomczak 2012; Bugajska, Timoszyk-Tomczak 2014). The objectivity of this time is determined by specific facts or events arranged in historical chronology. It can be said that this is the most factual, real time, somehow naturalistic for a given senior.

It can be reproduced during surveys, dialog, as well as during document analysis. Proposals for research questions specifying this area should be, for example, the following:

- What is the life story of the senior?
- What happened in turn in the life of the senior?
- What were the individual stages of life childhood, youth, adulthood, late adulthood, early old age?
- What are the differences between the individual phases of life?
- What events have left their mark on the memory of the senior?

Another area of time, which remains in the spirit of neutrality and objectivity and which can be researched, is the time spent or filled. It concerns various forms of activity, events, cyclical events, organizing the senior's time primarily in the present, but also in the context of past regular events. This establishes an area describing the routine and preferences in the activities undertaken. In this field you may also find tips for activation or reluctance to activate in everyday life. In addition to routine, this area shows interests, talents, skills and development needs. This is the area of time research most closely connected with educational experiences and with the willingness or reluctance to undertake further development tasks. Research questions to help determine the discussed topics may be:

- What activities are preferred by the senior?
- With whom does the senior spend time best and why?
- What life passions have been realized/could still be realized?
- What were the professional tasks of the senior and how did they proceed during his/her life?
- What were the senior's days filled with/what are they currently filled with?
- What was the difference between time spent on work and personal life?
- In what time rhythms did the senior function?
- What is free time for the senior?

Another proposed research dimension is the one concerning the subjective passage and feeling of time. This is an area of assessing one's biography, in which facts and events acquire a certain emotional, cognitive and axiological character. The relationship between time and memory is emphasized here. This category may also include research into the relationship between the elderly and the time itself, thus acquiring a more temporal meaning and research dimension. Proposed research questions in this area may relate to the following:

- When did the senior feel that he/she was old - if that was the case at all?

- What was the easiest/difficult stage of life?
- What are the most important events in life/most painful/most interesting/most fruitful/most deserving of attention?
- When was the slowest/quickest passage of time?
- At what moments did time stand still?
- What did he/she think about young/old people throughout his/her life?
- What are the senior's expectations for the future?
- Who is best remembered from the past?
- What is most often remembered?

This aspect is directly related to the area of perception of the past, where the subject of research can be simultaneously the category of memory, and also to the area of perception of the present, in which a subcategory of reconciliation or non-conciliation with different facts/states/persons/ and perception of the future can be distinguished, where besides expectations, plans, dreams and goals, the attitude to death can also be studied. As it can be seen from this, research involving specific stages of temporality in its linear dimension can be combined with states or meaningful contents of concepts that are relevant to them and that are embedded within a given stage. For the past it will be memory, for the present reconciliation, and for the future it will be death. These issues somehow determine the axis of interest around which one can penetrate the past, present or future in a direct or indirect way. For similar reasons, the following research questions are proposed for this area:

- What is becoming more and more important in the life of an elderly person over time?
- What is becoming less and less important for seniors over time?
- What makes the senior feel rooted in the present?
- What is the present for the senior?
- What happens/ could happen in his/her life now, what does/ could matter to him/her?
- What is the assessment of one's life duration?
- What else would the senior like to do in life?
- What is the attitude to death in general?
- What is the attitude to one's own death?
- What is the image of the senior about the time after death?

The next two areas are variations of the perception of the past and concern wasted time and denied time. The first one encourages the elderly person to reflect, leading to a balance of life, not so much in the psychological sense, but in the temporal sense. In this area, there are subcategories of regret that something has not been done, decisions that have not been made, activities that have taken time for other preferred activities, or choices and values that are important to the seniors during their lives and have not been realized. As in the previous areas, the concepts accompanying the analyses of temporality can be distinguished here as well. In this sense, the Kantian premise that time is an axiomatic concept for other cognitive events and experiences is realized. If you want to ask about wasted time, you can use the following research questions:

- What is the most regrettable for the senior in life?
- What decisions would have been made if it was possible to be born again?
- What events have taken more time than they should have taken?
- What passions could not be realized?
- What dominated everyday life?

On the other hand, when it comes to denied time, it concerns a rather difficult to study experience or experiences in the life of older people who they do not want to remember or have simply forgotten and are unable to return to. Research penetration of this field seems to be so difficult that we can deduce about its existence on the basis of conjecture, interpretation of gestures, non-verbal behaviors, etc. At this point, it is worth highlighting the additional difficulty of research on older people, namely the tendency to show one's own reality better than it is and the consequent need to use control questions to clarify and detail the statements and answers of seniors on various, particularly sensitive, issues. For this area it is proposed to use the following research questions:

- What is the least mentioned period in life?
- What in his/her life does he/she not want to talk about?
- What would the senior like to forget about the most?
- Which events cause uncertainty as to the place and time of their occurrence?
- Which events in life have better not happened?

The last of the areas discussed and proposed for research is the one concerning gained/regained time. Contrary to the last two, this refers rather to reflection on the future. We can talk about the recovered time when some events were to last longer than really lasted, and their effects were initially supposed to be worse than it finally turned out. A good example of this is the situation where someone was to be deported to Siberia, but managed to escape from the transport or was imprisoned but an amnesty was announced. It is an area that simultaneously brings out the notion of luckiness, miracle, coincidence or providence. This area is proposed to be studied by means of the following research questions:

- What great changes did the senior make in life?
- What could happen all the time?
- With whom does the time spent together seem priceless?
- What events in the life of the senior had the character of a miracle/luckiness/providence?
- What events/moments in the life of the senior changed the course of his/her further life?
- What critical events took place in the life of the senior?
- How long did these crises last?
- What had an impact on their duration?

Finally, it should be stressed that the multitude of the research questions mentioned above does not mean that all of them have to be used, nor does it mean that they have to be exploited in the proposed form for putting questions in a research tool. Apart from the inspiration to operationalize the tool, it can be treated as interpretative questions of the answers of the senior, to whom the researcher, as for example in grounded theory, asks one question. Then, the conceptualization of research areas and questions described above may be a hermeneutical structure, open to the researcher, used to extract meaningful content from statements.

Summary

For research on old age, the time category seems to be extremely interesting and promising due to its variety of meanings and the interdisciplinary nature of research. The research activities carried out by the aforementioned Charlotte Bühler and her team in 1933 can be a good point of reference. Her research team, consisting of a psychologist, sociologist, historian, physician, art historian, musicologist and statistician, contributed to the development of the concept of the course of life. The team analyzed the biographies of various elderly people, both famous and unknown to the wider society. As a result of the work of this team, the first theory of the course of life was created, inspiring further biographical analyses (Rzepa 2002).

The category of time seems to be so varied in terms of its historical development and ambiguity of content that it can become a good idea for research on the elderly as inspiring various aspects of the functioning and life of people in this age category. In addition, which was not mentioned earlier, it may also be a category combining a group of seniors with other age groups and serve as a bridge in comparative research, distinguishing the specificity of the older age group from other generational experiences. A research discourse on time can be both a subject of research on old age, as well as their broad meaning context.

Attention should also be paid to other categories and thematic areas which are closely linked to time and which can serve as a conceptual framework for improving knowledge about old age. Memory, which seems to be a cognitive category as rich as time, should be considered an indispensable accompanying concept. Such a category can also be death, which in the social and individual subconsciousness is often linked with old age, and by its essence sets the limits of time - human, historical, as well as the life time.

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