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Problems with starość (age). On natural and scientific categories

Streszczenie

Kłopoty ze starością. O kategoriach naturalnych i naukowych

Artykuł poświęcony jest kwestii stosowania kategorii naturalnych w pracach naukowych. Polski wyraz starość używany jest w naukach społecznych jako termin naukowy pomimo iż jest wieloznaczny i – co ważniejsze – nacechowany emocjonalnie. Autorka twierdzi, że przywiązanie do tej kategorii opisu wynika nie tylko z dobrze ugruntowanej pozycji słowa starość w systemie leksykalnym języka polskiego, ale także odzwierciedla potrzebę skrótowego i obrazowego nazwania okresu życia ludzkiego, który jest zarazem porównywalny do dzieciństwa, jak i względem niego symetryczny. Idea symetrii pomiędzy początkiem i końcem życia ludzkiego pojawiła się w sztuce XVI wieku; przyjęła ją również nauka XIX wieku. Późniejsze ustalenia podważyły zasadność takiego wyobrażenia, mimo to jest ono wciąż silne, a termin starość jest nadal stosowany w opisach naukowych.

Słowa kluczowe:

kategoria naturalna, kategoria naukowa, starość

Abstract

This paper is devoted to the problem of using natural categories in scientific works. The Polish word $starość\ (age)$ is used in the social sciences as a scientific term, despite the fact that it has retained its polysemy, and, more importantly, is emotionally marked. The author of this paper argues that attachment to this category of description results not only from the well-established position of the lexeme starość in the lexis of the Polish language, but it also reflects a need for a synthetic naming of the period of human life which is both analogous to childhood and holds a symmetric relation to it. The idea of a symmetry between the beginning and the end of human life appeared in the art of the sixteenth century and it was upheld by the science of the nineteenth century. Despite having been challenged by the findings of particular human sciences, this imaginary is still strong, which causes the term $starość\ (age)$ to be still employed in scientific descriptions.

Key words:

natural category, scientific category, age

An individual living in a particular culture and communicating in a specific language functions at the same time in the world of cultural imaginaries. He learns reality, assuming that it objectively exists, by means of instruments developed by culture. The instruments are dependent on specific languages, which means that cultural images of reality may vary significantly from one another. Thus, it is naming that is important. It enables us to separate certain phenomena of the entirety of the surrounding world.

Common, or colloquial acts of naming do not need to be strict. It is enough that they quickly and effectively elicit specific meanings.

Natural languages are the basis for communication in everyday life and in learning. Accordingly, in European culture, the following appropriate categorization models are distinguished: pre-scientific, or in other words natural (which appears both in a general language and in local dialects) and scientific (captured in terminologies). A natural category arises by distinguishing a certain phenomenon from reality, which can then be considered as a model used for recognizing other phenomena. Phenomena are assigned to the same category on the basis of their similarity to a selected pattern. Scientific categories are slightly different in this respect, though. They are established by defining a set of essential characteristics, which are attributed to a particular phenomenon (Maćkiewicz 1988).

In modern scientific descriptions, the lexeme *starość* occurs very often. Accordingly, research conducted in particular disciplines show that the issue of old age is popular and seems to be extensively analyzed. The lexeme *starość* is sometimes used as a scientific category, so it is often considered as a term. However, I think its status is not obvious. The noun *starość* is derived from the adjective *stary* and has long been used in Polish. It has existed in daily language, so it is believed to have an obvious meaning and is appreciated for its economical imagery and vividness. Old age as a category of description combines the aspects of age, health condition, appearance, family and professional situation. Similarly, the comprehensible noun *starzenie się (ageing)* depicts the very process, but is still difficult to define. However, it can be argued that it points to the relation between "biological" and "chronological" age (Kirkwood 1999, p. 23).

Researchers are keenly aware of problems resulting from moving natural categories to scientific terminology resources. Natural categories, which are intracultural, or emic (as opposed to etic categories), are important for the studies of a specific culture which uses a particular language, because they let researchers access local ways of perceiving and describing the world (Pike 1954, Harris 1976, Kottak 2006, p. 29). However, if a researcher attempts to describe universal phenomena, or at least those beyond the framework of specific cultures, he needs to free himself from culturally imposed imaginaries — as Émile Durkheim would recommend. Durkheim believed that these *idola (notiones vulgares* or *praenotiones*) are dangerous especially in sociology because they create beliefs in things that are mistakenly taken for the things themselves (Durkheim 1895, p 23).

In the reception of scientific descriptions, it is difficult to avoid suggestive imaginaries if scientific terms are formed on the basis of colloquial vocabulary. Kamilla Termińska claims that (Termińska 2009) "When granting the rank of a scientific term to a colloquial word, it is generally its common meaning that is used. The term deprives itself of the polysemy of the word by sharpening some semantic nuance and introducing

others. Pulling the word out of its linguistic environment gives it unambiguity. It does so by defining contexts, that is, entangling it in a theoretic network of syntactic and semantic links different than that of the language of daily communication" (p. 235). It is easy to agree with this opinion, but in the case of words that are strongly emotionally marked it is not always possible. Therefore, it is not the only way to coin terms. Sometimes they are created in an arbitrary manner — symbols, digits or Latin as a "scholarly language" are used; such actions cause the newly coined terms to have a value of universality. One scholar who was aware of it was Rudolf Otto (Otto 1917), when he used the term *das Numinose* (instead of 'deity' or 'god') in the book entitled *Das Heilige*. The choice of this term allowed readers to avoid deep-rooted imaginaries that might have occurred if the term had been derived from the vocabulary of the German language.

Terms which are derived from the vocabulary of a particular language are not only loaded with contemporary meanings, but also entangled in former meanings. Reaching for the etymology of a word facilitates the reconstruction of its former meanings and their processes of change. According to Słownik etymologiczny języka polskiego (Boryś 2005), the Polish word starość is derived from the Proto-Slavic *starъ meaning 'stary'. This, in turn, is related to the Proto-Indo-European *stā-ro-, the original meaning of which was 'strong, powerful, robust, steady, stable'. Over time, a new meaning was attributed to the adjective stary: 'not young, of advanced age'. The lexeme stary took the place of the adjective *vetbchb (meaning 'old') inherited from Proto-Indo-European, the traces of which can now be found in the adjective wiotki, or 'flaccid, flabby, lacking firmness, thin, slim' (p. 575-576, 702). Aleksandra Niewiara, in analyzing the current reading and etymology of the adjective stary, pointed out that it has several meanings in Polish. Stary means both 'being many years, old', 'of a long life', 'bygone', 'used, damaged', 'obsolete', 'stale', 'bad', not fresh', but also 'experienced', 'having a higher social standing' or 'having a higher rank'. It is therefore not unequivocal, and — more importantly — it hides both negative and positive connotations (Niewiara 1995). The etymology and the range of contemporary meanings of a natural category (especially one used as a term) cause it to become untranslatable into the terminological system rooted in another natural language. The Polish word starość is not synonymous with the English age. They differ from each other not only in contemporary meanings, but also in their etymology. Age refers primarily to time — etymologically, it means 'space of time, eternity' (Klein 1971), and is derived from the Proto-Indo-European *aiw- 'vital force, life, long life, eternity'2.

¹ Professor Kamilla Termińska delivered a lecture on this topic at the anthropological and linguistic seminar organized by the Department of General Linguistics and the Theory and History of Culture at the University of Silesia in March 2008.

² Online Etymology Dictionary; http://www.etymonline.com/index.php?allowed_in_frame=0&search=ag e&searchmode=none It is Aleksandra Niewiara who writes about Proto-Indo-European roots, which convey the meaning 'old, former, bygone' (Niewiara 2000). Anna Z. Zmorzanka, in turn, elaborates on the Greek lexis concerning old age (including the roots it is formed on), (Zmorzanka 2011), while Małgorzata Rygielska deals with the image of old age in French (Rygielska 2013).

Durkheim's warning is still relevant, even for research where the category age is used with the conviction that it is transparent – as happens, for example, in works devoted to demography and social policy. In such works, one of the main tasks is a striving to pinpoint the threshold of old age. In order to achieve the task, findings from disciplines such as biology and physiology are referred to. However, they do not offer clearcut solutions. It is assumed (Rosset 1967) that "whatever the answer, it must be concrete. Practically, a certain conventional limit is set, which is required to be correct from the logical point of view and suitable for comparisons on an international scale" (p. 14). In the same work, it is pointed out that old age has several meanings, e.g. it means a stage of life and denotes the aging process of a population (pp. 11–13). The same researcher notes that it had been suggested that the threshold of old age should be set at sixty or sixty-five years (which was related to the retirement age). Yet, he makes a reservation that "In our opinion, the working age or the retirement age should not be identified with old age. The former is primarily an economic category. The latter is mostly a biological one" (p. 16). These considerations suggest a typical tension between what is universal and contextual, i.e. a reference to studies conducted by biologists and physiologists is supposed to show that the lexeme starość (age) is a universal category (etic one). It denotes a supra-local phenomenon. Yet, at the same time a solution was adopted that was based on a social usage characteristic of only a part of the world. Up to the present moment, this arbitrary solution has been used – older people are those who are 60 or older (see e.g. Kalache 2005) or people over 65 years of age (see e.g. Puchalska 1986). In some studies, no specific 'thresholds' are provided. However, data presented in descriptions or tables refer to an age of 60 or 65 years (cf. Peace 2008).

If natural categories are used in scientific publications, allowances must be made for the fact that the lexeme considered as a scientific term (burdened with a specific etymology, history of development and additional contexts) will generate an imaginary confusion. A scientific term should have a strict meaning and neutral character. It seems that the first prerequisite is relatively easy to fulfill, i.e. it is enough to create a proper definition. In the case of old age, it is virtually impossible because it is a multi-faceted phenomenon (Szatur-Jaworska 2000): "The stage of old age is the final stage in human life - starting with the achievement of the conventionally determined »threshold of old age«. It is a dynamic and synergistic relationship of biological and psychological processes, and changes in the sphere of an individual's social activity" (pp. 33-34). The excerpt above highlights researchers' surprising inconsistency in their approach to the phenomenon: if one can talk about the mutual influence of biological and psychological processes, it cannot be accepted that they are associated with the conventionally and in fact arbitrarily adopted threshold of old age. Between biological and psychological factors, there is a network of non-obvious relations: being retired is primarily dependent on the number of years an individual has lived and/or worked, rather than the biological condition of his body; being a grandfather or grandmother (also roles that old age is attributed to) are not directly associated with age. Still, it is normally people of advanced age that tend to be grandparents. In the light of these considerations, it is worth quoting Szatur-Jaworska's observation: "With the extension of the average life span in developed societies, demographers introduce new – higher – thresholds of old age, tacitly assuming that in a longer lifetime the stage of late maturity is extended, and thus old age shifts to a later age" (p. 35). So, one cannot help but wonder at the fact that Szatur-Jaworska deems it necessary to determine thresholds of old age because she claims they provide solid frameworks for analysis and a clarity of terminology (p. 37).

The distinguishing of old age as a phase of life is caused by a linguistic habit, so it is difficult to operationalize. Furthermore, it is difficult to turn it into a scientific term because, in order to do so, it is necessary to pinpoint the characteristics of the phenomenon of aging and identify the binding relationships between the positions of this catalogue. We know that what is commonly called old age is related (or may be related) to number of years lived, (health) condition, a sense of being old and social roles performed. However, we are not able to indicate direct and clear-cut relationships between these elements.

In natural languages, meanings are created in the process of long-lasting accumulations. In the sciences, in turn, terms employed for descriptions should refer to specifically defined ideas. Such terms ought to be conventional, systemic and unambiguous; i.e. determined by strict definitions. They should be neither emotionally nor evaluatively marked, and – most importantly for our considerations – they should be used in specific situations with respect to specific objects (Kornacka 2002). The pre-scientific category *starość* (*age*) does not meet these conditions.

In the passage cited above, Szatur-Jaworska used the noun *phase* with respect to old age. The term phase means a stage or state in the development of a phenomenon. In world cultures, there is a conviction that human life is divided into stages, which does not mean that for defining the stages one model can be presented. Attempts to determine phases and stages of human life have been made in European philosophical thought since ancient times by Solon, Pythagoras (who also referred to the dynamic idea of growth with respect to youth, and contraction/shrinking with respect to old age), and Plato (Zmorzanka 2011, Jurkiewicz 2011). The Fathers of the Church also believed in the possibilities of indicating phases in human life and they would often refer to the thoughts of ancient wise men (Naumowicz 2011). Life stages were compared to the seasons or periods of the world's existence. This motif also appears in art. Consider the best known examples, *Die drei Lebensalter des Weibes und der Tod* (1510) and *Die Lebensalter und der Tod* (1543) by Hans Baldung Grien. Baldung's paintings present female figures of different ages – the figures' ages are revealed in their nudity. Baldung stresses biological transience and evanescence – change entails the inevitable destruction

of the body. At the same time, yet another representational model appeared. It was popular until the mid-twentieth century and is known as the stairway of life (Hazelzet 1994). The earliest works of this type include Jörg Breu the Younger's Die neun Lebensalter des Mannes and Die neun Lebensalter des Mannes by Cornelis Anthonisz – both works date from 1540 (Lucke 2008). Such works did not shock one with a view of senile bodies, they did not highlight decay and decline, but still they did not conceal it. In fact, they built a rather calm picture of ascending and descending steps. The earliest representations of the stairway of life showed men, while those created later on depicted women or couples. The stairway of life presented human fate in a symmetrical manner - one step was assigned to every ten years. The prime of life – according to the authors of the works - was forty or fifty years. Interestingly, representations of animals or sometimes nursery rhymes and proverbs were also attributed to particular stages. Douve Draaisma, while analyzing an anonymous representation of this type created circa 1680, noted that the time of descending the stairs (as opposed to the time of ascending) was devoid of joy, hidden in the shadow, gray and monotonous (Draaisma 2013, pp. 8–11). The work analyzed by him did indeed have such an undertone, which does not mean that other variants of the stairway of life were equally depressing. In my opinion, unlike Baldung's paintings which exposed physiology, representations of the stairway of life would rather stress – by means of attire, objects, props and gestures – an individual's place in a group, thus showing roles assigned to people of a certain age.

Stephen Jay Gould claimed that our perception of phenomena is considerably influenced by dominant cultural patterns. The researcher believed that visual metaphors created for the use of science are close to the social beliefs of a particular time. In other words, imagination suggests some familiar forms that people fill in with content, thus constructing ideas about the world. The ancient Pythagorean image of growth (attributable to youth) and contraction (attributed to old age) and the modern representation of the stairway of life (along with the image of going upstairs and downstairs) let us think about human life in a symmetrical manner. The idea of the symmetry of life processes in the nineteenth century was reflected in Herbert Spencer's writings. In the First Principles (Chapter 12: "Evolution and Dissolution") the author deals, among other things, with the course of integration and disintegration processes in animals. He shows that the initial phases of their life cycles are characterized by the dominance of integration (when growth takes place), whereas the final ones (when disintegration is prevalent) lead to the destruction of the effects of integration (pp. 283–285). The division of human life into stages does not need to be identical with a belief in symmetry. However, Spencer's vision clearly suggests a symmetry of the initial and final phases of life. I refer here to Spencer because his works (including First Principles, published for the first time in 1862) had a vital influence on nineteenth century thought.

The symmetric imaginary of the ascent and descent of human life also appeared in medicine. For example, it can be found in a book published in 1853 by the French physician Joseph-Henri Reveillé-Parise (Reveillé-Parise 1853). The image of a symmetry is constructed by means of descriptions, especially those in chapter two, entitled "Phases diverses de la vie" (pp. 8–12), and via the attached diagram (p. 9):



Reveillé-Parise imagines human life in the form of a curve that rises and falls, thus outlining two main phases — growth and decline. He makes it very clear that what the curve stands for is the idea of life.

Science describes reality by using available models of cognition. Scientists reach for culturally developed categories and models. However, it also happens that these categories and models permeate science without the researcher's intentional or even conscious intervention. The common way of thinking affects the scientific manner of ordering concepts. Scholarly works often include manners of ordering concepts based on similarity and analogy or contrast, resulting from temporal and spatial adjacency as well as organization based on gradation (Maćkiewicz 2000, p. 108).

I think that what lies behind efforts to search for thresholds of old age is the yearning for analogy and symmetry that results from common thinking. Biologists are aware of the fact that old age is not a mirror image of childhood and youth. In the initial years of human life, there are developmental regularities which are closely correlated with age; that is to say, the younger an individual is, the shorter the periods are when significant biological changes occur. It is relatively easy to determine whether developmental processes are running their proper course, or if for some reason they have been disrupted because their variable time span (for changes running correctly) is short. However, each subsequent stage (no matter how many of them we single out) will be characterized by increasing flexibility arising from a less and less apparent correlation between the temporal and the biological. Nevertheless, we find it difficult to accept some imaginary blur—we want old age to have limits because we believe that it exists. Our language confirms its presence. It is the reverse of youth. Old age is a capacious and non-obvious category. It is attributed to long-lived people (especially to those who do not enjoy good

health) as well as retirees and grandparents. It mixes together both characteristics and attributes. As a category it seems unquestionable; it beguiles us with confidence that it depicts reality, while it is really completely different. We are the ones who try to see it in social roles and years lived by an individual³.

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³ I discuss the topic of this paper more extensively in the text entitled "Starość: kategoria naukowa czy wyobrażenie kulturowe" (Gomóła 2013).

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