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**PECULIARITIES OF THE CONCEPTUALIZATION OF THE PHENOMENON  
“NUMBER” IN THE GERMAN LINGUISTIC CONSCIOUSNESS  
(BASED ON THE MATERIAL OF THE GERMAN NUMERICAL PHRASEOLOGISMS)**

The article deals with the study of the national and cultural specific character of the German emotionally marked phraseological units with the lexical component «Number». The specific features of the conceptualization of the mental information on the number in the German linguistic consciousness are described. Frequent cognitive determinants conditioning the actualization of cultural features in the German national conceptsphere are singled out. The set of the dominant objects qualified by the German numerical phraseological units is determined. The specific features of the representation of the number category in the works by famous German mathematicians, astronomers, musicians in the aspect of the correlation of the number with the German cultural valuables and traditions are represented.

**Key words:** number, linguistic consciousness, phraseological units, semantics, German order and number, Pythagor, Kant, objects of emotional estimation, cognitive determinans, cultural constants.

The category of number is ontogenetically connected with the dominant categories of the fundamental branches of scientific knowledge (logic, philosophy, biology, etc.) and determines all the report majority both in terms of man and environment interaction and in the level of language, functioning as a basic semantic and grammatical category of “quantity” in all its variety.

The fact that civilizations and their written language development were inevitably connected with *Number* phenomenon (Sumerian written language creation, etc.) appears to be typical. “Any word absorbing one or other sense presents itself a countless figure combination. It also arose because of the fact that some ancient alphabet *letters* were not only *sounds*, but also the *quantity* of something” [1]. Ancient alphabets and written languages could be interchangeable. For example, in the western Semitic alphabets of the 1 st. millennium B.C. and in the Greek alphabet the first letter in order [e.g. Greek *alpha*] can be a sign for the first integer of the natural row after zero (i.e. «*α*» meant number 1), the second – for the second are («*β*» meant number 2), etc. This principle was kept in all the systems, based on the Greek model, particularly in the Old Slavonic and Old Russian. When letter form is changed, its ordinal position in the alphabet and numerical value are likely to stay unchanged, that is why *the ways of number denotation* are very important for the study of the alphabet history [2]. *Number* is determined as ideal essence. “Primary sense of the ideal is defined by the Plato-and-Aristotle difference of the two “worlds”: *the world of things vs. the world of ideas* ”

(Plato), or “*matter vs. form*” (Aristotle). *Number* is not so much the result of abstracting from the material (that is postulated by the naturalistic number interpretation) as *idealized* essence, i.e. *idealization result*, or Husserl ideation (the second sense moment of the concept ideal)” [3].

In contrast to mathematics, the concept “Number” is revealed and showed in culture by means of three interconnected forms: a) counting, i.e. some action; b) the word, verbalizing the number, i.e. the number’s name (Numeral, as a rule); c) some character of the number, i.e. its sign (figure) [4]. Diving numbers into an independent class and providing them with features and functions are connected with abstract human thinking development: the concept of number, “taken off by the thought from the image of the definite objects of the object world”, became abstract conceptual essence [4].

Number is correlated with the *word*: on the one hand, it is concerned with the desire to see the number behind the word, on the other hand- with the desire to the semantization number, i.e. to return it the role it had in mythopoetic epoch (potential sacrality, canonization) [1]. Archaic ideas about *number* are reflected in *phraseological* usage; moreover, they undergo transformation, development and serve as basic material for the formation of new images [ibid.]. Numeric idioms, i.e. idiomatic combinations with the lexical component “number” are characterized by sufficiently high representation degree in the German linguistic world picture. As the investigation of T.V. Ryapolova shows, the quantity of the numeric idioms is 1106 from 20000 PhU, represented in German phraseological dictionaries, that stipulates their high significance [4, p.10].

The introduced article reveals *national –and- cultural* features of the German PhU with the lexical component “*Number*”, as a means of similar concept objectification in the German national world picture. Particular attention will be given to the analysis of peculiarities of the conceptualization of mental information about number in the German linguistic consciousness, as well as to the revelation of *the objects, qualified* by the German numeric phraseological units with emotive -and value- content. The concept is determined as units of mental or psychological recourses of our mind and the information structure that reflects the knowledge and experience of men. It is an operative substantial item of memory, mental lexicon, conceptual system and brain language, all the world picture, reflected in men’s psychic [5, p. 90]. Emotionally motion marked phrasal units with quantitative semantics taken from the German Russian phraseological dictionaries and listed in the bibliography have been used for the investigations.

## 1. NUMBER in mythopoetic system

NUMBERS in mythopoetic systems represent one of the most famous classes of signs, oriented into qualitative- and -quantitative evaluation. They are the elements of a special number code serving as a means of description of the *world, man and methoddescription system itself*. As scientists stress mythopoetic bases of number, counting and numeric models are more distinctly revealed in the archaic cultures where: 1) Number acts independently without any connection with objects; 2) the system itself is not defective; 3) numbers are not totally decemantized (as in the modern-type cultures lacking the notion of the heterogeneity of the number row members) [6].

The ideas about number in the aspect of mythopoetics are visually generalized by Sarah Voss in her famous work “A Calculating Myth by Sarah Voss” (Depolarizing Mathematics and Religion by Sarah Voss ...pizine.files.wordpress.com/.../depolarizing-), exemplified in the table below in the English and Russian languages. “A Calculating Myth” is translated by from English to Russian Sergey Catrechko [3].

*A Calculating Myth by Sarah Voss**Сапа Восс «Миф о числе»*

<p>In the beginning there was <i>Nothing</i>. Nothing grew bored with being <i>Nothing</i> and decided to become <i>Something</i>. <i>Something</i> wanted to discover <i>Everything</i>, so <i>Something</i> split into <i>Parts</i> and the <i>Parts</i>, fearing they would forget how they fit into <i>Something</i>, sought out <b><i>Order</i></b>. <i>Order</i> gave the <i>Parts</i> <b><i>Numbers</i></b>, which the <i>Parts</i> gathered unto themselves in beautiful <b><i>Proportions</i></b>. Then, out of <i>Nowhere</i> (closely associated with <i>Nothing</i>) came <i>Irrationality</i>. <i>Irrationality</i> declared flatly that the <i>Parts</i> were really <i>Nothing</i> after all. Enlightened, the <i>Parts</i> quietly slipped back into <i>Something</i>, which they now recognized was really <i>Nothing</i>, and left the discovery of <i>Everything</i> to <b><i>Numbers</i></b>. (A Calculating Myth by Sarah Voss)</p>	<p>В начале было <i>Ничто</i>. Ничто устало быть <i>Ничем</i> и решило стать <i>Нечто</i>. Нечто захотело познать <i>Всё</i>, поэтому Нечто разделилось на <i>Части</i>, и Части, опасаясь забыть то, как они превратились в <i>Нечто</i>, разыскали <b><i>Порядок</i></b>. Порядок дал <i>Частям</i> <i>Числа</i>, которые собрали Части друг с другом в прекрасные <b><i>Пропорции</i></b>. Далее из <i>Ниоткуда</i>, тесно связанного с <i>Ничем</i>, пришла <i>Иррациональность</i>. Иррациональность прямо заявила о том, что <i>Части</i> на самом деле были <i>Ничем</i>. Просветившись, <i>Части</i> тихо вернулись обратно в <i>Нечто</i>, которое, как теперь они узнали, в действительности есть <i>Ничто</i>, и предоставили <b>поиск <i>Всего</i></b> <b><i>Числам</i></b> (Миф о Числе (перевод с англ. Сергея Катречко)</p>
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Thus, “A Calculating Myth by Sarah Voss” includes three levels of reasoning, according to which: 1. Number originated from nonexistence. Cognition assisted to the origin of the parts (elements) of the world that tended to order. 2. Order gave the parts numbers, owing to which they united themselves into fine proportions, i.e. created harmony; 3. On the second stage nonexistence brought irrationality enabling one to estimate the parts as nothing, that contributed to their return to something (nonexistence). Quintessence: there remained only the **numbers**, that *are to search everuthing (truth)*. This can be exemplified as follows:

1) IN THE BEGINNING →nothing (*bored with being nothing*) →SOMETHING/EVERYTHING (*being split into*) →PARTS (*sought out*) →ORDER (gave the parts) →NUMBERS (collected the parts) →(*fine*) PROPORTIONS.

2) FROM NOWHERE (LOCUS - PLACE) (*nothing*) → ***irrationality*** (*declared*) →PARTS (NOTHING) →PARTS (*slipped back into*) →SOMETHING (*being*) →NOTHING,

3) PARTS (**provided the search of everything**) TO NUMBERS

Thus, in the archaic traditions *Numbers* could be used in the situations, which attached sacral, «cosmic» meaning. In so doing *Number* appeared to be the **image of the world**, and hence – the means for its periodical restoration in the cyclic scheme of the development for overcoming destructive chaotic tendencies [7].

According to Pythagoras the variety of physical phenomena obey the law being the unity, the cosmos, i.e. the order, whose base of which is number. However the matter is not in arithmetic number, but in *number as metaphysical reality, connection, law of the world*, in relation to which arithmetic number is just a cognition form [8].

## 2. Pythagoras Conception About *Number* and its Reflection in the Works of German Phylosophers.

According to Pythagoras, theory, **the base of** numbers is the unit. It is the embodiment of the unity and harmony of the Universe as an indivisible essence has the unit as his number. From the moment of manifestation God is **dual** (mater and spirit, masculine and feminine inception). All the visualized world is symbolized with the number **three**: for as man consists of *body, soul and spirit, the whole Universe is divided* into three spheres: natural world, human world and divine world. Just as world triplicity is accumulated in the unity of God so the human one is concentrated in consciousness and will, thus forming tetrad [8].

It is interesting to note that in every number a principle or an active force was determined by Pythagoras. The contrast between the odd (the highest) and even (the lowest, derived from the highest by doubling) numbers is revealed in nature **as a series of other contrasts**: *light and darkness, the infinite and the limited, the kind and the evil, the movable and the motionless, the masculine and the feminine, etc.* [8].

Pythagoras considered that the natural world is really built from numbers: **body** is limited by *planes*, planes – *by lines*, line – **by dots**. Dot the last element of the Universe – is identical to the one. That is there is correspondence between *spatial world and numbers*: line - “2”, plane - “3”, body - “4” [8].

In the context of the information aforesaid it is interesting to note that the majority of conceptions about *number* made by German scientists are based on the theory of Pythagoras, who saw the basic task of the Earth being in the establishment of internal ORDER, NUMBER, HARMONY, WORLD. As noted above, the study about number as the essence of the whole world, is the bases of the Pythagoras studies [8]. It is the very key word «ORDER» that is the dominant one in the works of German research people.

In the German cultural space means The phenomenon of «Number» occupies a special place and correlates with the basic values of the German ethnical group, one of the key ones is ORDER (*Ordnung muss sein*) supposing the exact (quantitative) definition of the world essence, of all the realms of the internal and external world of man. It is interesting to mention that the ontological characteristics of the German world «Number» itself states the closest ontological connection of the conceptions of «Order» and «Number», i.e. «Number» is determined as sui generic as «order».

It is well known that such culturally dependent maxims as *pragmatism (rationality), perfectionism, time cult, discipline, organization, precision, punctuality, etc.* with ORDER belong to the system forming determinants of the German world picture comprise Meanwhile the phenomenon «ORDER» connected with the German (mathematical) accuracy, pedantry, clear and well-defined logic, subtle facts verification based on the scrupulous calculations, etc., represents their integrating cognitive constituent. These are the German virtues which are fully revealed in the categorization of the phenomenon «NUMBER» in the German linguistic culture, and, correspondingly, in the German linguistic consciousness. This fact is clearly represented, in particular, in the works of the German mathematicians, philosophers, astronomers, composers, etc. especially in the works of I. Kant, G.V. Leibniz, J. Kepler, A. Werckmeister, etc.

The category of **quantity** (unity, multitude, totality) make the central part of the study of *I. Kant* about the philosophical categories in his transcendental analytics [9]. The Kant’s studies about philosophic categories is in the center of transcendental analytics. The clear notions of reason are the philosophical categories among which the primary position of which is taken by **quantity** category (unity, multitude, wholeness), then follow *qualities* (reality, negation, limitation), *relations* (innateness and independent existence (substantia et accidens)), *communication* (interaction between acting and subjected to action), *modality* (possibility – impossibility, existence – nonexistence, necessity - randomness) [9].

Number for *Kant* – is a *distinctive «cell» of quantitative definitions*. It arises and exists thanks to the fact of my addition of one unit to another in the process of synthesis of the homogeneous notions. But it means that I «generate the time itself», when I sequentially compose both the set of units, and «create» a single duration of corresponding (homogeneous) contemplations [9].

In 1714 G.V. *Leibniz* stated in his well-known «*Monadology*» that the world consists not of atoms, but of *monads*, that he regarded as *the unit, a number*, a simplest essence (from the Greek mona – unit, essence), endowed with soul and memory [10].

The German scientist J. *Schmid*, as a representative of «precise» (German) culture, believed that practical, quantitative understanding of number is far more important: i.e. the statement of where this number occurs in the Bible, but not what it means [11]. On the basis of the Bible Schmid (1736) formulates a number of mathematical problems. Answering the question of one of the Old Testament books: «*how to count sand on the earth?*» (The Exodus 12:37), Schmid acts purely mathematically, calculating the quantity of sand grains that could be placed on the globe, he states its diameter and conducts the following «precise» calculations [ibid.]. Schmid interprets number as an instrument for calculations and counting.

Special attention should be paid to the fact that German scientists regarded «Number» category not only as a separate and independent (mathematical vs. philosophical) phenomenon, but they tried to set various and complex *links number* with definite cultural, religious canons, etc.

Peculiar attention has been given to arranging of the interconnection:

- between *geometry* and *music* (J. Kepler; Andreas Werckmeister),
- between *number* and *music* (A. Kirher),
- between *words (hymn text)* and *number* (D. Bookstehooder),
- between *musical rhetoric* and *numerical symbols* (D. Bookstehooder),
- between *music* and *number alphabets* (G.F.Harsderfer), etc [11].

The epistemological correlations mentioned above are widely and deeply described in the research of M.N. Blazhevich (2012) [11], where the author performs a number of important scientific observations, which are of interest within the chosen problem. M.N. Blazhevich particularly studies the ideas of four thinkers – the authors of the comprehensive treaties about the world and «world music»: *Roberth Fladd*, («The History of Two Spaces»), *Johan Kepler* («The Harmony of the World»), *Antanazius Kirher* («The Universal musurgia»), *Maren Mercenn* («The Universal Harmony»).

### 3. Number and Music from the Point of View of German Mathematicians and Composers

As M.N. Blazhevich notes, **Johan Kepler** tries to justify an immediate connection between *geometry and music*, devoting his work («The Harmony of the World» (1619) to this problem, demonstrating musical intervals in the form of geometric figures [11].

It is significant that a German scientist of the 16th century *Johan Kepler*, having come to in the world history as mathematician, astronomer, scientist, whose developments contributed to the creation of telescope, as well as a famous astrologer was an exponent of the theory of Pythagorean study about number: «*All is number*», «*Numbers rule the world*», «*all the laws of nature can be expressed with numbers*» [12]. In one of his works "*Misterium Cosmographium*" («Cosmographic Secret»), published in 1596, he stated the following thesis: «The essence of the

three things – why they are organized in such a way – was especially interesting for me, namely: number, dimensions and space orbits movements» [13].

Kepler operated on the premise that every astronomical body has its own number. He assumes that the number obeys the laws of dialectics. «The number size can be very small (quantum, photon) and very big (the Universe). The dot of the space space with minimum density has also its number. Numbers can both absorb and emit the other numbers» [14].

In M.N. Blazhevich`s opinion, **Andreas Werckmeister** is the closest to the musical practice. «He develops his study about numeric symbolism on the *Radikal-Zahlen* conception», as genuine musical «indigenous numbers»: 1, 2, 3, 4, 5, 6, -, 8, — which form consonance proportion»[11]. The researcher pays attention to the fact, that **Werckmeister** excludes the seven from the radical numbers row (because it doesn't give consonance); hence the well-known interpretation of the seven as «a number of rest» (as it is well known, on the seventh day of Creation God rested), obtains new shades of meaning.

The peculiarity of **Werckmeister`s** opinion was the idea of fundamental similarity of the laws of music with the laws of motion of heavenly bodies, going back to Kepler`s works [15].

Like Kepler, as it follows from the observation of M.N. Blazhevich, **Anthasius Kirher**, a German scientist and encyclopaedist treated mathematical laws as divine and God-given. If Kepler regarded something obvious - geometric figure - as the basic connector between the human and divine levels, Kirher thought that it was the very «*figure of thought*», figure-symbol, whose *definition* is the treatise «The Universal musurgia» (1650) [11].

In considering «Number» category in the German culture «The Mathematics of Faith» in choral fantasy of Dieterich Buxtehude «Nun freut euch, lieben Christen g'mein» BuxWV 210» deserves attention. He studies «the correlation of the *word (the text of church hymn) and number, interaction of musical rhetoric and numerical symbolism*» [11]. Of a great interest the classification of numerical alphabets, done and described by G. F. Harsderfer is [11].

The reflection of the different approaches to numerical symbolism interpretation, *determined from the views of different religion: Catholicism and Lutheranism* is worthy of attention.

#### 4. Number as a sign of denomination

While studying numerical symbolism in the German music M.N. Blazhevich touches upon an important observation that number often serves as a sign of faith [11]. Catholic priest Pietro Bongo («Biblical mathematician» (1736)) as a researcher notes, called numbers - *divinae virtutes*. The word *divinae* - «divine» - is meaningful by itself, *virtus* in Christian Latin means not only *vis* (power), but also *miraculum* (*miracle*) [11]. Thereby, as M.N. Blazhevich emphasizes, the number in Bongo`s treatise is a sign of faith, *including a divine power and miracle*. When Lutheran preacher Johann Schmidt mentioned that «practical, quantitative understanding of number is meaningful: the statement of where this number is mentioned in the Bible, but not what it means». On the basis of the Bible Schmidt formulates a number of mathematical problems, particularly, while answering the question of one of the Old Testament books: «*how to count sand on Earth?*» (The Exodus 12:37), - Schmidt acts purely mathematically, counting how many grains of sand could be found on the globe, he gives the information about its diameter and makes further «accurate» calculations [11].

As opposed to Bongo, M.N. Blazhevich concludes that Schmidt interprets number as an instrument for calculations and counting, affirming that numbers have no meanings – «the power of action», apart from the one that they obtain being used in practice. The author singles out four ways of the number use (mathematical, mystical, figurative and cabbalistical) [11].

## 5. Concepts «Order» and «Number» in the German World Picture

Special significance of the phenomenon «Number» in the German linguoculture is proved, as it is stated above, by a great number of phraseological units with the lexical component «Number». According to the calculations of T.V. Rjapolova, 1106 out of 20 000 PhU, found in the German phraseological dictionaries are numeric phraseological units [4:10]. Culture borrows «bodies» of the signs for presentation of their mental structures, including phraseological units. Phraseological structure of language is the basic object of cultural linguistics [16:21].

According to etymological interpretation of the German word «Zahl» («Number»), objectifying the required concept, it dates back to proto-Germanic *talō*, that is, apparently, the root of the Old-German words (*Ordnung* (order), *geordnete Darlegung* (ordered statement), *Bericht* (message), *Aufzählung* (enumeration) and *zalōn* (*berichten*) (inform), *rechnen* (calculate), *zählen* (count), *berechnen* (calculate), *zahlen* (count)) [17].

The word *zala* was transformed in *zale* oder *zal* in the Middle German, dated back to the modern word *Zahl*. The *proto-German* word originated, presumably, from the proto-indo-European *\*del-* (*spalten*); in this case the original meaning could be «eingekerbtetes Merkzeichen» («carved/ threaded sign (mark)») [17].

Number, as a strictly mathematical notion is not directly related to the *expression of emotions and their realization in the language*. Though, emotional and valuation component is a priori relevant for vast majority of the German numerical phraseological units [18]. The valuation field of the numerical phraseological units is mainly represented by *anthropological sphere*, that is laconically explained in the following philosophic expression of George the Great "homo est quodammodo omnia" («man is everything in the known sense»).

## 6. Number and Emotions: number phraseological units as verbal representers of qualities, state, and human activity:

According to the investigation conducted the objects of emotional evaluation, demonstrated by numerical phraseological units in the German world picture, are:

1. *Human qualities.*
2. *Different types of human states*
3. *Appearance, activity [18]*

The abovementioned anthropological constants are mostly qualified as numerical phraseological units, the meaning of those contains these or that *culturally-specific features/realms*. This is not by chance, as «valuation essence of a phraseological unit is culturally-substantiated: as valuation creator [...], an exponent of emotions, a speaker reveals the cultural opposition – approval or disapproval, caused by their interpretation in the categories of culture – appropriateness, correctness, worthiness» [16:22].

### 6.1. Numerical Phraseological Units as Qualifiers of Human Qualities

According to our observations, the qualifications of HUMAN QUALITIES, objectified by phraseological units in the German culture, are mostly focused on the *intellectual* resources of man. It reveals the typical priority of rational determinant (in the aspect of man`s evaluation) in the German linguistic consciousness.

Let's examine several examples: compare. *j-d hat für einen Sechser Verstand* (literally: *some mind (intellect) has enough for the six* [Röhrich 1991]). The decoding of the semantic component of the phraseological unit is based on the image of the German system of education at school, according to which «the six» means the lowest (the worst) mark, used as an indicator of knowledge [19], while in Switzerland «6» is the best mark.

Some numerical phraseological units, qualifying some intellectual constants, are based on equivoques, thus maximizing the degree (value) of one or other intellectual deficiency. Compare.: *Geleerter mit zwei e sein* (literally: «to be deserted (empty) with double[e]») in the meaning: *extremely silly person, as silly as a two-bob watch* (Sch., Cd 10.4). The equivoque is based on the similar morphological structures of the two lexemes: *Gelehrter* (taught/ trained → from the verb *lehren* – to teach somebody) [the given noun is used with positive connotation] and *Geleerter* (from the Adjective *leer- empty*) → the verb *leeren* (to empty) → Noun (empied), being negatively marked.

The ambivalent intellectual valuation is manifested by PhU *der, die Neunmalklug* (literally: having nine minds), ironically: *clever man/woman* (German-Russian Dictionary, 631). The above mentioned PhU has a polar interpretation in the German culture. The number «neun» («nine»), as *positive* valuation, is interpreted in the aspect of its interconnection with the number «3», being the number of completeness and perfection. Triple exaggeration of the feature (3x3=9) is associated with *infinity*. At the same time the phraseological unit «*Neunmalklug*» is used for representing *pejorative* valuation, for example, in case when man is evaluated negatively («*know-all*»).

Semantic contents of PhU *der, die Neunmalklug* correlates with the meaning of the German numerical phraseological unit «*siebengescheit sein*» (literally: *to be agile and skil(l)ful seven times*), whose etymological meaning dates back to the notion «**Seven free arts**» (*Septem Artes liberales*), that implies being well-educated in different spheres of knowledge: in grammar, rhetoric, logic/dialectics, arithmetic, geometry, music and astronomy [20]. Today this expression is used ironically (know-all, boaster).

Concerning the number «7» it is necessary to note that it is used in a wide range of phraseological units, catch phrases, quotations, etc. Compare.: *sieben auf einem Streich* (the seven with one kick), *Siebenmeilenstiefel* (seven-league boots), *Siebensachen* («seven things», i.e. one's thing, goods and chattels) etc.

The German expression *Die böse Sieben* (literally: *The Angry seven*) is fairly unusual for the Russian culture. It is translated as *Fury (Megaera)*, that allegorically means *furious woman* and accordingly reflexes malignance, violence. The notion *Fury* dates back to the Greek mythology, according to which *Furies* (for Greeks) are mythological goddesses of revenge - three sisters: Alekto, Megera, Tisifona – the children of Night and Aheron (turned to the river across which Heron carries souls of the departed to the infernal regions [21].) Thus, the number «Seven» in the phraseological unit «*Die böse Sieben*» correlates with the seven goddesses of revenge.

From the point of cultural specificity (in the range of the phraseological units with the estimation of mental-and-ethical qualities), is of special interest the numerical phraseological unit *auf seinen fünf Augen beharren* (literally: *put on your five eyes*) - *stubbornly insist one's being right* (Bin. 1956, A 733), which is absent in the Russian language. It reveals the characteristics: «*stubborn*», «*thickheaded*».

According to the German sources, the key word *Augen* is quite often used for the other realms nomination, the ones that resemble *the eye*. For example, playing lotto, dominoes, etc. «eyes» can nominate *dots on the cubes*, that are used to show value of one or other cubic surface and, accordingly, the dots («eyes») can be calculated. This fact explains such German expressions as *Auf die meisten Augen spielen* (literally: *to play on «the majority of eyes», i.e. to*



use the most significant cubes in the game), *Vier, fünf u.s.f. Augen werfen* (literally: to throw four, five (...) «eyes») [Adelung 1793: 557-561]. Moreover, in a card game, the cards having no pictures («the six», «the seven», etc.) are called «eyes» in the German culture, that initially indicates the degree of the cards significance in the game.

Compare.: *Ich habe kein Auge in meiner Karte* (literally: I have not a single eye in the card). i.e. the player has only bowers in disposition. *Er hat die meisten Augen* (literally: He has the majority of «eyes») [Adelung 1793: 557-561], i.e. the player has many «sixes», «sevens», etc. The metaphorical images used in above phraseological units are based on the « features of sensor mechanisms and their interaction with psychic, that help a person to compare the incomparable and commensurate the incommensurable» [Arutjunova 1990:1]. Besides, cultural and epistemological basis serves as a necessary condition for discovery of the semantic content of the required PhU («*Auf seinen fünf Augen bestehen*»). The constituents of this basis are conceptions vs. knowledge about different types of leisure, characteristics of games organization, symbolism of game elements, etc.

Numerical PhU, which posses EXTERNAL (OUTWARD) data of a person as an object of evaluation are also characterized by culturally specific features. For example, a child who imagines himself to an adult is named in the German family with such numerical valuation PhU, as *ein Dreikäsehoch* (*sein*) (literally: be as high as three pieces of cheese one on top of another) or: *kaum drei Käse hoch sein* (literally: to be hardly of a height of three pieces of cheese one on top of another). Such phraseological units with the number «drei» in combination with lexeme «cheese» is widely used in Bavaria, which, as known, is renowned for its cheese making. Thus, the number (quantity) of cheese pieces serves as a frequency quantifier, a measure of height for a small child. The tradition of putting pieces of cheese on one another served as motivational-and-epistemic basis for the formation of the initial phraseological unit. The external type of numerical PhU is also formed by the phraseological unit “*j-d ist nur eine halbe Portion*” (literally: «somebody is just half the portion») – coll. Unceremoniously: somebody is a pushover, featherweight, sickly man (Bin. 1975, H 90).

## 6.2. Numerical phraseological units as qualifiers of human state

The range of the German numerical PhU (further NPhU) is widely represented by the phraseological units qualifying different types of HUMAN STATES and reflecting one or other culturally-specific features. They incorporate NPhU with the valuation of *emotional and psychological, psychological/physical, intellectual, social states of the subject*, etc. Considerable amount of numerical phraseological units can be singled out as culturally marked. For example, phraseological unit *j-d kommt auf hundert* (literally: somebody goes to hundred) in the meaning: «*somebody flares up*» (Bin. 1975, H 1249), is more often used as a means of objectivization of ANGER (fury), and has several ontologically connected phraseological synonyms (compare. *auf achtzig/neunundneunzig/hundert sein/kommen* (literally: to be at 80/99/180 [degrees], i.e. to be on the verge of your emotions/to reach the limit); *j-m auf hundert/hundertachtzig bringen* (literally: to bring somebody up to 100/180 [degrees])).

It is significant that quantifiers of the intensity degree of emotions manifestations serve the numbers, given in geometrical progression, i.e. cited in their progression: 80→99→180 or 100→180.

The numerical phraseological unit *in tausend Ängsten (um j-n) schweben* (literally: «to be/hover in thousand of fears» for another person) – to imagine different horrors (Bin. 1975, A 330) is used for categorization of the state of FEAR in its extreme manifestation.

The **feature of expressivity**, more often actualizing ultimate intensity degree of emotions manifestation, is relevant for the above PhU conceptualizing basic human emotional and psychological states. Such numbers as 80, 99, 180, 100, 1000, etc. are introduced as verbal manifestators. (Compare. *mit 100 / 1000 Ohen hören (to listen 100/ 1000 with your ears)*), etc.

Among emotional and valuative numerical phraseological units with the component NUMBER of great interest is the exclamatory expression ***ach, du grüne Neune!*** (literally: *Oh you green nine! – col. - here's a fine how-d'ye-do!* [de.wikipedia.org/wiki/Grüne\_Neune]), objectifying some unpleasant **astonishment**. There are only a few interpretations of the phraseological unit being analyzed. In accordance with the first one the meaning of the PhU used to express (unpleasant) *astonishment or fear*, is gnosiologically connected with *transferring French playing cards to the German culture*. The nine of spades in German playing cards is depicted as «leaf», «grass» («Gras-Neun») («Grassy nine»). In laying out playing cards the nine of spades traditionally does not signify anything good (great trouble, diseases, property loss, etc.). The negative feature of the nine of spades, symbolically depicted by the image of a small green leaf or grass on its upper and lower surfaces forms the basis for the formation of the initial meaning of the phraseological unit *ach, du grüne Neune!* (*Oh, you green nine!*). Another interpretation is connected with the fact that the expression „Grüne Neune“ («The green nine») epistemologically correlates with the France Valner Theatre (das Wallner-Theater) in Berlin (Blushnemstrasse Street, 9) and its main entrance on the so-called *green road* (am Grünen Weg). The theatre is widely known for its satirical and sharp staging [ibid.].

Numerical phraseological units categorizing *psycho-physiological/physical* states of the subject, represent, among other things, the following categories:

a) of *drunkenness* (***voll wie tausend Mann sein***( schwer betrunken sein) (Sch., Hd 6.21)) (literally: «to be as full as thousand of men»);

b) of *completion of the biological cycle (death)* (***die Augen auf Null stellen*** umg. (sterben) (Duden, 11, 63) (literally: «to set the eyes to zero» (to die)), etc.

The expression ***die Augen auf Null stellen/drehen/gestellt haben*** (lit. *to put/turn the eyes on zero (to die)* - umg. (sterben) (Duden, 11, 63)). belongs to absolute lacunar numerical phraseological units. In the given example «Zero» acts as an identifier of hollow space, an area, that is etymologically connected with the origin of the very notion «Zero». According to the numerical symbolism, **ZERO** (0) symbolizes infinity and eternity. The very word «figure» originated from the Arabic «tzifr» - *empty or free*. The zero is associated with the eternal primordial emptiness, implying the principle of the origin of all the things. This number possess as neither parameters, nor boundaries, nor size. The Jews call it Ain, the Indians – Shunjata, the Greeks – Chaos and Abyss (see: <http://glossword.info/index.php/term/>).

Thus, in the above phraseological unit «to put the eyes on zero» zero symbolizes departure to eternity, to emptiness.

In general it is necessary to emphasize that the number «Zero» belongs to the very progressive elements in the German phraseology. Let`s give some examples:

1) *null Fehler, Grad; (es ist) null Uhr; der große Zeiger steht auf null; Stunde null; bei null anfangen; in null Komma nichts (sehr schnell);*

2) **umgangssprachlich**: null Ahnung haben (*keine Ahnung haben*), null Bock [auf etwas] haben (*keine Lust [auf etwas] haben*).

Also compare. some derivative notions:

- einnullen, nullen,
- Normalnull, Null, Nulltarif,
- Null-Bock-Generation, Nulldiät, Nulldurchgang,
- Nulllinie, Nulllösung, Nullmenge, Nullmeridian,
- Nullpunkt, Nullrunde, Nullstelle,

- Nullsummenspiel, Nullwachstum, Nullwert [22].

The above Phraseological Units with the «Zero» component are worthy of researching in the aspect of their linguistic and culturological significance. It should be noted that the PhU *voll wie tausend Mann sein* represents many synonymous variants: *voll wie 20 / 40 / 100 / 1000 / 10000 / zwanzig / vierzig / hundert [ ... ] Mann sein/ (lit. to be as full as 20/ 40/100/1000 men)*. The given numerical phraseological unit is used to mean: «to be schnoekered, to feel a strong influence of Bacchus» ([www.redensarten-index.de/suche.php](http://www.redensarten-index.de/suche.php)).

### 6.3. Numerical Phraseological Units as Qualifiers of the Human Activity

Among actional numerical phraseological units, i.e. acting as verbal manifestator of HUMAN ACTIVITY, there stand out the phraseological units with clearly defined national and cultural specific character. Compare.: *j-m die (stählerne) Acht anlegen (literally. to put (steel) eight on somebody – meaning to put handcuffs on somebody)* (HPC, 46);

As a rule the given phraseological unit is used ironically in the German colloquial speech, the representative of the artifact (handcuffs) being the number «8» for its graphic similarity with the former objects.

Culturally-specific features are also noticeably actuated in the meaning of the phraseological unit «**Tausendkünstler**». Its semantic content (*lit. master of thousand arts*) dates back to the Middle Ages, the epoch of strolling musicians who could play many musical instruments, for example, clarinet, organ, flute and others, that is why they were called «*masters of thousands of arts*» or «*the All-mighty*» *Alleskönner*(cm.:[www.redensarten-index.de/suche.php](http://www.redensarten-index.de/suche.php)).

Thus, the meaningful component of the above phraseological unit can only be revealed with the definite historical-and-cultural special features of the existential spatium of the German ethnic group.

### 6.4. Numerical Phraseological Units as Qualifiers of External Features (Appearance) of a Person

The analysis of the PhU with the lexical component «*Number*», acting as emotive qualifiers of HUMAN APPEARANCE, also reveals their national and cultural specific character. It is necessary to emphasize that the description of the appearance often correlates with *weather (weather conditions)*, more often with *rain, overcast day*, etc. Compare.:

- *j-d sieht aus wie drei Tage Regenwetter* coll. (literally. somebody looks like three days of rainy weather – somebody looks gloomy) (Bin. 1975, R 270);

- somebody is darker than a cloud. Compare. also: : *ein Gesicht wie drei Tage Regenwetter machen* (literally. «to make the face so as if it has been raining non stop for three days» (= *mißmutiger Gesichtsausdruck*) – *to be gloomy, dissatisfied*), etc.

From the aforesaid, we can conclude that cognitive indicators of appearance (state) in the German culture can incorporate: *countable temporal (7 days) and meteorological constants*. Besides, it is significant that for the German world picture the description of the emotional and psychological state of a person in general is more typically correlated with the negative natural phenomena (rain, hurricane, fog, etc.) which are often used as a basis for formation of metaphorical images [23].

The numerical phraseological unit «*Den Hut auf halb Acht/ Zehn haben/ aufsetzen* (literally. *to put on a hat on a half past seven, etc.*) (DI, 378) is interesting from the point of linguistic and cultural analyses. In the process of decoding semantic content of the given phraseological units several aspects of linguistic and cultural character are singles out: on the one

hand, the PhU under consideration deals with *extremely accurate* (typically German) observing and accordingly, with the specific position of a hat on the head of a man (*on a half past seven, eight, etc.*) and, on the other hand, a negative valuation of the *carelessly* put hat may be revealed («the hat is put slantwise»), that has nothing in common with the external image of the German: the appearance of the German to be irreproachable and neat.

The etymology of this phraseological unit can also correlate with the social status of a man, as well as with the etiquette accepted in the German society. Thus, «in the process of the cultural interpretation the image of the phraseological unit correlates with the different layers of culture, that «interweave» into the phraseological unit and form its second semantics – the cultural one» [Kovshova 2009:23]. The following PhU: *die Haare liegen auf halb Acht* (literally. «the hair are sput on a half past seven»), "*Halb-Acht-Stellung*" («the position (situation) is on a half past seven»), *die Hose auf halb acht tragen* (lit. «to wear trousers on a half past seven») also correlate with the given above expressions. That is identified with the subculture of German teenagers to wear trousers at half-mast ([www.redensarten-index.de/register/h.php](http://www.redensarten-index.de/register/h.php)).

NUMBER, in the S.L. Katrechko opinion, has symbolically-ideal character of being [...]. According to «the thesis of Haidegger about ingenuously-a priori character of the mathematical: ««τά μαθήματα» means ... the thing that a man knows beforehand while examining the matter and appealing to the things: there is fleshiness in bodies, there is vegetation in vegetables ... This known, i.e. mathematical, also includes the numbers together with the aforesaid. Having found three apples on the table, we [ingenuously] get to know, that they are three» [3]. *The symbolical meaning is primary*, because along with the numerical content, the number possesses the culturally-typical semantics, the recreation of the model of the world, its principles and structures, specificity of mentality [4; 24].

Generalize the basic results of the above analysis:

Thus, for frequency cognitive determinants stipulating cultural features actualization of the German society being reflected in the semantics of the PhU by the component «Number» the following elements are used: 1) the elements of the «*monetary system*» (haler, pfennig (compare. *ein falscher Fuffziger* (literally «false pfennig with nominal of 50» -*Two-faced person*) (Bin. 1975, F 775)); 2) the features of the *assessment* in the German system of education (the mark «6»); 3) the specific features of *leisure* (the significance of *number* in the game of lotto, domino, cards); 4) the type of professional occupation/ trade (cheese making in Bavaria); *historical and cultural realms* (seven free arts, shpilmans in the Middle Ages); 6) the features of *artifact`s* use (items of clothes), etc.

*Numbers*, gnosiologically connected with the notion «**clock**»/«**hands of clock**» act as an important determiner, qualificative description of a person being identified in the German culture with *the position of hands on the watch*.

The identification of vital functions of a person with clock serves as one of the demonstrative factors of the correlation of the daily, strictly ordered rhythm of the German life with the most accurate temporal barometer – clock. *Clock (the numbers on a clock)* serve as a motivational base for decoding cultural specific character of the German numerical phraseological units.

3, 7, 9, 12 belong to the most frequently used numbers in the structure of the German phraseological units characterized by their national and cultural specific character. 2, 3, 7, 9, 10 are *sacrally* marked numbers characterized by a high degree of use in the German phraseology.

It is necessary to note that the frequency indicator of lexemes is one of the significant factors for the understanding of cultures. Many «numbers» within phraseological units act as intensifiers (totalizers) of some feature vs. action, etc. At the same time they are actively used as *emotive qualifiers*.

The modification of the degree of the feature's manifestation is represented, as a rule, by *numerical synonymy*, whose elements are in the geometrical progression to each other. The

degree of the feature's (action's) growth is realized on the basis of cognitive and mathematical strategies of *doubling* (20→40), *tenfold increase* (100 → 1000), (1000→10 000), etc.

The next cognitive strategy forming numerical PhU is one of the widespread measures of the quantification of the physical (hydronic) essences – «*highest boiling/heating point* (up to 100/180 degrees)» and, accordingly, these very numbers objectify different degrees of intensity and manifestation of the human emotional state.

The cognitive basis for numerical phraseological units is also often structured on the basis of notions «*(Pre)limit/Limit*», whose verbal representators are the numbers 99/100. Gastronomic constants with quantitative semantics («somebody is *half the portion*») may also serve as a measure of the psychophysical state of a person, manifested by numerical phraseological units.

The correlation of emotively marked numerical phraseological units with expressiveness, being manifested in the intensification of one or other feature, the domination of *the highest or ultimate* degree of the reflecting feature prove the fact that sensual (sensory, emotional) component belongs to relevant characterological features for both the Germans and the Russians [23;24]. National-and-cultural specific character of the German numerical phraseological units is, to a certain extent, conditioned by peculiarities of the German language structure contributing to the realization of polar valuation definitions, on the basis of equivocal among other things. It should be noted that the phraseological units with meliorative valuation of the state are represented by only insignificant number of items.

Thus, the analysis of numeric phraseological units totally confirms the significance of the phenomenon «Number» for the German national conceptosphere. The desire of the Germans to give exact quantitative definition to everything, to measure and to express everything using definitely precise, verified data is broadly reflected on the phraseological structure of the German language. The common numerical system having covered all the cultures of the world was realized (is being realized) differently in the linguistic and cultural space of different languages, including their phraseological systems, that was illustrated by the material of numerical phraseological units of the German language. Culturally marked phraseological units in the quantitative correlation, to a certain degree, exceed the ones with the universal features.

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