

Artículo de investigación

Human textuality as an interdisciplinary problem: the relationship of the genome, gunas of nature and biological destiny of a human being**Человеческая текстуальность как междисциплинарная проблема: взаимосвязь генома, гун природы и биологической судьбы человека**

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Abstract

The purpose of this work is by relying on the interdisciplinary aspect to provide evidence in defense of the thesis about the textual nature of a human being. The author believes that a human being is a text on the biological and metaphysical levels of matter, and an interdisciplinary approach is able to discover the mutual relationship between the gunas of nature, genes and the biological destiny of a human being. An interdisciplinary approach is used as the lead. The author relies on scientific data of genetics, epigenetics, philosophy of language, linguistics, philosophy and philosophy of religion. The paper presents a comparison, analysis of scientific data of the Humanities and natural Sciences about a human being. The novelty of the work is determined by the interdisciplinary approach to the problem of human textuality. The linguistics help to understand the structure of DNA as a linguistic structure. The philosophies of religion help to notice the similarities between genetic polymorphism and karma, gunas and genes. The epigenetics help to capture the special relationship between nutrition, stress and epigenetic landscape, human mood and biological destiny. Philosophy helps to notice the interdisciplinary connections between the Humanities and natural Sciences and to bring the study of a human being to a new level of understanding.

Keywords: Textuality, genome, epigenome, word, gunas of nature, the biological destiny of a human being.

Аннотация

Цель данной работы: опираясь на междисциплинарный аспект представить доказательства в защиту тезиса о текстуальной природе человека. Автор считает, что человек-это текст на биологическом и метафизическом уровнях материи, а междисциплинарный подход способен раскрыть взаимосвязь между гунами природы, генами и биологической судьбой человека. В качестве ведущего используется междисциплинарный подход. Автор опирается на научные данные генетики, эпигенетики, философии языка, лингвистики, философии и философии религии. В статье представлено сравнение, анализ научных данных гуманитарных и естественных наук о человеке. Новизна работы определяется междисциплинарным подходом к проблеме текстуальности человека. Лингвистика помогает понять структуру ДНК как лингвистическую структуру. Философия религии помогает заметить сходство между генетическим полиморфизмом и кармой, гунами и генами. Эпигенетика помогает уловить особую связь между питанием, стрессом и эпигенетическим ландшафтом, настроением человека и биологической судьбой. Философия помогает заметить междисциплинарные связи между гуманитарными и естественными науками и вывести изучение человека на новый уровень понимания.

Ключевые слова: текстуальность, геном, эпигеном, слово, гун природы, биологическая судьба человека

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Introduction

Human textuality is very complex to understand. The author is in the very beginning of the research, and yet it's already clear how exciting journey to this "terra incognita" is going to be. The basic idea behind this research is very simple: Human is a text. However, this very simple idea is very hard to explain and prove, especially in the light of Bacon's Idols of the Theater that are firmly entrenched both in scientific and common consciousness.

But let's, however, assume that Human is textual on biological, as well as social levels of matter patterning, and ask ourselves a question: what if our findings could help us better understand how to be human?

What if the linguistics could help us to understand the structure of DNA as a linguistic structure? And the philosophies of religion help to notice the similarities between genetic polymorphism and karma, gunas and genes? What if the epigenetics help to capture the special relationship between nutrition, stress and epigenetic landscape, human mood and biological destiny? And Philosophy helps to notice the interdisciplinary connections between the Humanities and natural Sciences and to bring the study of a human being to a new level of understanding?

Can we continue to ignore the interdisciplinary connections between the Spirit Sciences and the nature Sciences, or would it be productive to assume that they influence each other and have mutual feedback, and thus at least help man preserve his humanity before he becomes completely disillusioned with his nature and rushes into a Posthuman future without man? Our world is rapidly changing, technogenic and biogenic technologies of human immortality are developing, attempts to blur the boundaries of sexual identification are observed. But man as a philosophical phenomenon is still a mystery. Who are we: an open self-developing system or a dying rudimentary element in a new, digital reality? Can we say that we know what a person is in his current bio-psycho-socio-cultural incarnation? Can dialog, synergistic way of thinking of modern philosophy to remind a person about his awesome nature?

In the context of this scientific work, the following authors helped to find some answers: Matt Ridley, Wells Spencer helped in the field of textuality of the genome; Peter Spork and Nessa Kerry - in the field of textuality of the epigenome.

A number of facts of genetics are taken from the works of V.S. Baranov and A. S. Spirin. Data on the linguistic nature of the text are taken from the works of I. R. Galperin. Data on the philosophy of religion are derived from the works of Bhaktivedanta Swami Prabhupada.

At this piece of paper textuality is understood as ability of human nature to collect, preserve and communicate information (at genetic level of matter) and meanings (at metaphysical level of matter). Those information and meanings are sufficient by themselves, but they do not exist independently, they interact.

From this perspective human looks like a text (Anshen, 2005) that is being simultaneously written by Nature, biologically, and by Himself, socio-culturally. So, Let us try to prove this assumption.

Methodology

The study by itself is a review study. It is important to emphasize that paper based on theoretical simulation. An interdisciplinary approach is used as the lead. The scientific work relies on data of genetics, epigenetics, philosophy of language, linguistics, philosophy and philosophy of religion. The paper presents a comparison and analysis of scientific data of the Humanities and natural Sciences about a human being.

Discussion

Just like any other text, human as a text has its own structure.

According to the Linguistic encyclopedic dictionary, text is a semantically coherent sequence of signs, the key features of which are coherence and completeness. Proper text structure shall meet the criteria of textuality, i.e. cohesion, coherence, acceptability, communicability (Yartsevo, 1990).

According to I. Galperin, text is a product of speech represented in a written form, characterized by completeness, wholeness and coherence, and consisting of specific text units (supra-phrasal units) joined by various types of lexical, grammatical, logical and stylistic means under one title (headline); it is pragmatically focused and has definite communicative aim (Galperin, 2006).

I. Galperin interpreted text as concentration of something organized and harmonized and in the meantime as something unpredictable in part that evolves in the process of text creation.

Human being as philosophical phenomenon may be defined as open self-organizing system that implies structural unity and rationality (the Apollonian element) and elements of dynamic chaos and spontaneity (the Dionysian element) at the same time.

Textual nature of a human manifests itself through his name as headline; human genetic, epigenetic, mental and cultural functions may be read as specific text units (supra-phrasal units); while bio-cybernetic and socio-cybernetic relationships of human with his environment might be lexical, grammatical, logical and stylistic means of joining these units together. Human continuously creates himself as a text. From biological perspective human body could be characterized as text too. It interacts with the environment and builds itself genetically and epigenetically.

Regular linguistic text consists of specific structural units – phrases, sentences, words. Biological text” of human body too has its own sentences and words, the function of which looks similar to the function of linguistic text units.

We know there are such linguistic units as phoneme, morpheme, word, phrase and sentence. Morphemes, words and phrases carry information. When the meaning of the morpheme, word or phrase changes, this change affects the information they carry.

Word and sentence have their own function that is not limited to merely preserving and communicating meanings and information, they contribute to making text a complete whole.

Is there any chance that “genetic text” functions similarly? Does genetic text has its own phonemes, morphemes, words, phrases and sentences? How does the science of biology interpret biological words?

Modern genetic scientists understand what a genetic “word” is by reading genome and its parts in their labs, using specific laboratory devices.

Alexander S. Spirin, a Russian biochemist, and Matt Ridley, a writer of popular science, and other researchers believe that even if in the

beginning was the “Word”, it wasn’t DNA, but DNA does carry its image (Ridley, 2015).

It seems to be true that in the beginning it was RNA that ruled the world (Spirin, 2003). RNA was this very first “Word”. RNA molecule replicates itself and catalyzes its own synthesis (Chemical encyclopedia). RNA is the live word, able to absorb nutrients from the environment in order to replicate itself (Ridley, 2015).

In light of these considerations RNA – the first live Word – looks like the most self-sufficient substance in the living matter, with functions similar to those of a word, a basic linguistic unit. Just like a word, during biochemical catalysis process RNA carries information that is contingent on any change in its meaning. Just like a word through its replication and coding functions RNA preserves and communicates information and meanings. Just like a word by performing its templating function RNA contributes to making genetic text a complete whole.

What are structural units of ribonucleic acids, and is there any similarity between linguistic units and genetic units?

In every live organism there are two types of nucleic acids: a ribonucleic acid (RNA) and a deoxyribonucleic acid (DNA). DNA and RNA both are composed of monomers called nucleotides, that is why they are known as polynucleotides (Echeverri and Perrimon, 2006). The RNA molecule is composed of a chain of ribonucleotides (adenine, cytosine, guanine, uracil). The unique structure and function of the DNA and RNA molecules results from their nitrogenous base sequences (Golenchenko and Silaev, 2003).

Now let’s see if there is any similarity between graphic symbols (like letters) that we use to represent sounds (like phonemes and their variations) and the nitrogenous bases of RNA – A, U, G and C, as well as ribose and phosphate group, if we dare suggest those are genetic phonemes.

Genetic phonemes of the RNA molecule build bigger units of biochemical language – nucleotides, which look like morphemes.

While interacting biochemically, the units of genetic language build syllables or polymers, which in their turn build phrases and sentences. And comparing to what we know from linguistics as units of language - like letters, phonemes,

morphemes, syllables and words, in genetics it is nitrogenous bases that look like letters, ribose and phosphate groups look like phonemes, nucleotides could represent morphemes, polymers are syllables and RNA could be read as the first word.

All this could mean that text encoded in a human has its own structure.

Human as a text is written “biologically” and “transbiologically” or metaphysically

Gunas of Prakriti that as we know influence everything about a human, reveal metaphysical nature of textuality of a human.

According to Bhagavad-gita, material nature is the lower or inferior Prakriti (Jada-Prakriti) and the living entity belongs to the higher or superior Prakriti (Jiva-Prakriti). However both are always controlled (Prabhupada, 2014). Material nature is endowed with three qualities or modes (gunas) that under the control of eternal time combine and permute to produce activities called Karma (Prabhupada, 2014).

A living entity that is biased by the influence of matter is conditioned or is a ‘conditioned soul’ (Prabhupada, 2014). A body that is a part of matter, is subordinate to the laws of nature (Prabhupada, 2014). When a living entity that originally is pure spirit comes into contact with matter, it becomes conditioned by gunas.

Bhagavad-gita defines guna as a strand, as well as quality, mode, thread or string. It says that the conditioned soul is tightly tied by the ropes of illusion (Prabhupada, 2014).

The three gunas are the following: “sattva” - goodness or purity, “rajas” - passion or energy, “tamas” - darkness, dullness or sloth. They cannot be separated and are tied together like tongues of fire. Gunas are responsible for the diversity of nature, depending on which guna dominates in each particular soul and each particular thing. Gunas intermingle and weave together countless times into a strong rope.

Gunas of Prakriti produce all forms of life and create all types of reality, they provide a unique stamp of individuality, of character and personality.

If we draw parallels between gunas and textuality of a human being, we can notice that gunas create meanings which are the core substance of textuality, they write a book of human

individuality, make humans readable. At the level of matter they interact with those elements that are present for and deserved by a particular conditioned soul, i.e. with karma and karmic circumstances.

For example, if rajas and tamas are predominant in a person at a particular time, we can hardly imagine that the conditioned soul of this person is holy or that this person is the incarnated Buddha. Because it’s not the way it works. Material nature creates a unique text for each life according to unique circumstances of its owner.

If we assume that gunas provide for the substance of the human life text, the text itself, then it’s obvious this text must have a form, so there must be letters, syllables, words, phrases and sentences, which should serve as the means of writing this text that gunas would use whenever they do their job.

In this context, why don’t we take a closer look at DNA macromolecules and genome itself, and why don’t we think better about how gunas themselves are born? What if we can draw parallels between the phenomenon of genetic polymorphism and Karmic function?

The Sankhya philosophy says that the rope of gunas is composed of three intertwining strands of threads, where each ‘guna’ thread has three subunits (minor threads) weaved together. This strong rope of Prakritigunas, woven countless times, creates a myriad of individualities (Patanjali, Yoga – Sutra). This feature of the ‘gunas’ rope makes it similar to functioning of human genome.

According to Spencer Wells, one of the main problems molecular biologists faced when studying DNA sequences was the DNA replication: in each cell of our body what we call a genome exists in two copies.

The reason why we have two copies of a chromosome is complex, but fundamentally it is due to gender. One of the reasons why sexes exist is creating new genomes. The DNA rearrangements called genetic recombination, which precede fertilization, are possible due to linear nature of chromosome, which allows for relatively easy transposing chromosome’s parts onto its pair chromosome, so creating new chimeric chromosomes. The actual reason why all this is happening is that it makes a good way to ensure diversity in each generation. Broken and rejoined chromosomes are not exact copies

of each other, they have different segments/fragments all along the chain.

Thus, genetic recombination creates new chromosomes different from their parent chromosomes (Spencer, 2013; Barber, 2008). So, similarly to gunas of material nature, human genome is designed so that it ensures genetic diversity in generations, due to genetic polymorphism.

Vladislav Baranov and other authors (Baranov, Baranova and Ivashchenko, 2005; Popes - cu, MacLaren, Hopkins et al., 2006) argue that genome sequencing of representatives of different races and ethnic groups showed remarkable resemblance of the original structure of their DNA. It turned out that genome of these different people was 99, 9% similar in its base composition (Baranov, 2009).

One the other hand, they found that genetic variation which actually makes us genetically different from each other exists. Genes vary in the number of copies of DNA sequences they contain and, most importantly, by single nucleotide polymorphisms (SNP).

So far, in addition to sequencing the human genome, scientists sequenced the genomes of a number of species. Interestingly, human and other mammalian genomes were found 90% similar (Baranov, 2009; Connor, 2006; Tomolin, 2008).

For example, human genome has hundreds of copies of MGC8902 (more than 2 hundred precisely), a gene, responsible for cognitive abilities or learning; chimpanzee genome has thirty-seven copies of MGC8902, and rats and mice have just a few. Another study discovered that humans and fruit flies have more than 60 percent of similar genes. Comparative genomics proved that there is high homology between a human and a chimpanzee.

With all this in mind, how can we not rethink from this perspective the gunas of material nature that as we know are responsible for all forms of matter and that condition all living entities according to their Karmic circumstances? We know that all forms of life can be structured both into gunas and genes, that both intertwine in different ways and modes, as the individual textual nature of their owners prescribes.

The processes of gunas and chromosomes intertwining result in a unique individual entity, the uniqueness of which is ensured, first, due to

individual karmic circumstances, and second, due to genetic polymorphism and genetic predisposition. So Karmic circumstances and genetic predisposition regarding each particular form of life both can be read or interpreted as a life-text that is unique both in form and substance.

We can hardly deny that heritable polymorphic variations in gene structure are the basis of the unique genetic passport and textuality of each person, that they play the key role in generating a unique biochemical profile of each person and in evaluating his heritable genetic predisposition to various frequent multifactorial diseases.

Based on the assumption that gunas and genetic polymorphism both affect material nature, it turns out that human being is responsible for the substance of his life-text. The process of building a human being from scratch depends on many factors, i.e. genetic burden, dynamic mutations (Gorbunova and Baranov, 1997), genetic predisposition and genetic polymorphism (Golubovsky and Manton, 2005). We should also remember that mutations and polymorphism can stay latent in a 'sleep' mode in human genome and never manifest.

Gunas of material nature within their Karmic activities in the process of creating a human being too go beyond just giving birth. The substance of human textuality is contingent on how a human reacts to external and internal challenges of his life.

Under the influence of mutations of meaning, genetic text writes itself, mapping a unique route that would comprise internal storylines, personal dramas of a hero, his multifactor diseases, genetic predisposition, and finally his unique biochemical profile. But this genetic text, as well as everything else in our reality, does not exist by itself. Its substance is subordinate to the influence of three gunas of material nature that weave together in peculiar and 'conditioned' fields of Karma.

This paper does not cover the issues of genetic garbage and pseudogenes, although correlation between pseudogenes and gunas and genes, the relationship between pseudogenes and textuality could explain a lot in terms of Karmic action of a conditioned soul.

It would be fantastic one day to know that genome, just like a perfect library, has its every part thoroughly organized and structured. No books with no cover, torn or absent pages, no

defunct manuscripts, no controversial papers about afterlife or communication with extraterrestrial intelligence. Nothing like that. Everything is barren, clear, and obvious, just perfect. Unfortunately, this perfect dream can never come true, neither in library, nor in life and most likely genome.

Genome is a book that has been writing itself continuously during billion years. Like an author, it has been drafting, adding and deleting fragments of text it once wrote (Ridley, 2015). So, just like books, we differ from each other not only externally, but also in our biochemical, physiological and psychological qualities, that all in one portray each person's phenotype (Baranov, 2009; Gregory, Barlow, McLay et al., 2006).

So if we assume that human is a text, then his choices and decisions add up to the substance of his unique book and unique books of his descendants, because each family from generation to generation creates and preserves its own core texts in its genes that pass down to the next generation and are stored latent in pseudogenes (Gerstein and Zheng Du, 2006).

All in all, gunas and genome have similar function and ensure diversity of the material nature. Gunas and genome build human beings from scratch. Gunas and genome are responsible both for the form and substance of human textuality, where gunas build individuality – traits of character and qualities, i.e. the substance of human text, and genome moulds its structure (Rakhimova, 2017). Therefore, human as a text is written “biologically” and “transbiologically”.

Textual nature determines human biological future

These days there is more and more research in western science on how epigenetic code influences human destiny, in which context human destiny is more and more often associated with human biological destiny.

Genetically, a human being is ‘written’ in various protein combinations that are based on the toughest foundations of genetic language which the DNA speaks. This language consists of just four letters, but people as the products of this language turn out to be absolutely different from one another, each person represents an exclusive, unique text. How is that possible?

Nessa Carey, British biologist, draws our attention to the fact that nucleus of a cell contains

the vast majority of the DNAs and genes that code for a human being; they are the design from which we are created (Carey, 2012).

A different thing though is that cells may very much differ from one another although they derive from a common mother cell that offers one development plan for all of them. The explanation for this phenomenon, as Carey asserts, could be that cells use common information differently (Carey, 2012).

But how do cells remember what they are supposed to do, and follow this plan no matter what?

In an attempt to understand how this works Nessa Carey compares DNA to a script that can be read in a thousand ways, each depending on cellular context (Carey, 2012).

DNA offers one single scenario, but in each particular case this one scenario due to a number of genetic and epigenetic causes would transform into a unique text.

In a theatre, when the play is really bad, even a great director and perfect actors cast could not produce anything good from it. On the other hand, we all happened to see a bad theatre performance of esteemed literary writings. Even in a case a script is perfect, the final outcome can be awful, when the interpretation is poor.

In the same way, genetics and epigenetics work intimately together to create the miracles that are us and every organic thing around us (Carey, 2012).

Hardly we can consider the processes happening in a living cell chaotic or random.

Genome is very smart, it's a smart book. Under favourable conditions genome can self-replicate and be read on its own (Carey, 2012). All thousand billion cells of a human body are the result of perfect DNA replication (Carey, 2012). Nessa Carey emphasizes that genome is primarily designed to ensure transparent DNA replication, word by word, when each cell is committed to make all the DNA duplicates identical to the original.

Nessa Carey suggests to recall one of the most famous lines in all English literature:

“O Romeo, Romeo! wherefore art thou Romeo?”

If we insert just one extra letter, then no matter how well the line is delivered on stage, its effect is unlikely to be the one intended by the Bard:

“O Romeo, Romeo! wherefore fart thou Romeo?”

It can be the same with our DNA – one inappropriate change (a mutation) can have devastating effects (Carey, 2012).

Therefore, on how perfect the DNA replication is, on the quality of genetic information too many outcomes depend this problem to be left without thought.

So how is our body able to build different cell types if they all emerge from a common genome (Carey, 2012)?

To answer this question Nessa Carey again refers to an analogy of actors reading a script. She says: “BazLuhmann hands Leonardo DiCaprio Shakespeare’s script for Romeo and Juliet, on which the director has written or typed various notes – directions, camera placements and lots of additional technical information. Whenever Leo’s copy of the script is photocopied, BazLuhmann’s additional information is copied along with it. Claire Danes also has the script for Romeo and Juliet. The notes on her copy are different from those on her co-star’s, but will also survive photocopying.

That’s how epigenetic regulation of gene expression occurs – different cells have the same DNA blueprint (the original author’s script) but carrying varied molecular modifications (the shooting script) which can be transmitted from mother cell to daughter cell during cell division. These modifications to DNA don’t change the essential nature of the A, C, G and T alphabet of our genetic script, our blueprint (Carey, 2012).

Epigenetics deals with bio-molecular information which cells preserve and transfer to their daughter cells, but this information is not inherited transgenerationally (Spork, 2016). So, when speaking about epigenetics, we should remember of the second code.

According to Peter Spork, a German neuroscientist, the first genetic code is represented by the sequence of letters of the genetic language, but besides this, there is one more information system, which ensures that every cell knows what it derived from, which way it is supposed to go, and what her destination point is.

Peter Spork argues that epigenetics analyzes structures that provide each cell with an individuality, and collectively create its epigenome. Epigenome memorizes not only structures for proteins, but also the rules according to which a particular structure shall or shall not apply. These rules along with the rest genetic text shall be passed down to daughter cells during mitosis.

To a certain extent, epigenome defines the future of a cell. It decides how the genome is expressed, which gene to turn off or turn on and when. Epigenome regulates the speed of cell aging and how sensitive a cell is to external irritants. It determines how long the cell is supposed to live and controls predisposition to diseases.

Peter Spork emphasizes the importance of the so-called epigenetic program that cells inherit (Spork, 2016).

According to Spork, epigenome has its own gadgets, the so-called epigenome’s ‘switches’. They purposefully connect to specific parts of the genome to choose which particular genes a cell shall use, and which not.

Therefore, epigenome creates the grammar which shall structure the text of our life.

It’s the software that is supposed to help cells use their hardware (their personal genetic code) correctly. Because if a cell had to be reading its genes and simultaneously synthesizing its proteins, its life would be chaotic (Spork, 2016). One of the main functions of the epigenome’s switches is ensuring intermediation between a genome and the environment. Dynamic environment may cause modifications in the second code, which would result in the transformation of genome activation program of cells. This may cause changes in the whole body (Spork, 2016).

Epigenetic ‘switches’ are responsive to the external environment, so external factors, such as the environment in which we were raised, the emotion of love, nutrition, stresses, hormonal balance, our prenatal experiences, psychotherapy, smoking, overloads, psychological traumas, climate, distress etc. may reprogram our genes (Spork, 2016).

Biologists very soon understood that genetic code itself cannot help in achieving the outcomes they envisioned. It is just a hardware apparatus controlled by software they know nothing about.

So for now we can see the code, but we are yet to understand its meaning – not just to read the text in this book, but understand the concepts (Spork, 2016). That's where epigenetics will help.

So, genome and proteins cofunction as one huge library, where DNA provides texts while epigenetic structures serve as librarians, catalogues and signs and are designated to manage and organize data.

In 1942 Conrad Waddington proposed his own illustration of the epigenetic landscape. In this figure epigenetic programs are envisioned as a slope composed of hills and valleys, that direct a ball, that is an aging cell, into different possible paths as it rolls down the slope. Environmental effects may alter its path, and if they are severe, they can even move the ball into another valley. Then following the changes in the epigenetic code our whole body will change.

And the older we are, the deeper valleys we roll into, and the harder it gets to switch them (valleys).

This is how epigenetic programs ensure interaction between a body, its genome and mind (Spork, 2016).

Cells retain memory that due to extensive changes in epigenome is able to store memories of our responses to various external challenges. The second code continuously changes in the course of our whole life, not just during embryonic growth only. Even in very old age we can affect it both positively and negatively.

Changing our lifestyle cannot cure our genetic defects, but these changes may positively affect our second code. By the power of our will and thought we can at least to some extent prevent or induce epimutations, and even reverse them.

These alterations may become part of our biological destiny, it's all in our hands (Spork, 2016). So, genome creates and encloses genetic alphabet, genetic syllables and sentences, and from this perspective it looks like a kind of a book, or script, or even a library. DNA provides framework for genetic text, but cells use genetic data differently, depending on individual circumstances of their owner. Epigenetics is responsible for the autonomy and identity of a cell, as well as for its memory.

The second code is highly responsive to various external factors, these factors can affect the epigenetic landscape of human cell. Human being, in its turn, can correct his personal life

text. Therefore, the biological destiny of a human, that is a product of the epigenetic code, depends on how he responds to external challenges. This is how textual nature of a human determines his biological future.

Conclusion

In conclusion it is necessary to draw the following conclusions:

1. Textuality at this stage of research is understood as the property of human nature to enclose, preserve and translate at different levels of matter structuring, both information (at the genetic level) and meanings (at the metaphysical level).
2. Human Being is a text that is simultaneously written by Nature (at the biological level) and by human being himself (at the social and cultural level).
3. Like any text, the textual nature of human being has a certain structure.
4. If the units of language in linguistics is considered to be graphic signs (letters), phonemes, morphemes, syllables, word, then the units of language in genetics can be called nitrogenous bases of RNA as graphic signs (letters), ribose and phosphate groups as phonemes, nucleotides as morphemes, polymers as syllables, RNA as the "first" word.
5. The content of human textuality is formed at the biological and non-biological (metaphysical) level.
6. The gunas and the genome have the same function, and are the cause of the diversity of the world. The gunas and the genome are involved in the "formation" of human being. The gunas and the genome are responsible for the textuality of human being in a meaningful and structural way.
7. If the gunas contribute to the formation of the framework of individuality-character, human qualities, meaningful textuality, then the functions of the structural component of textuality are performed by the genome.
8. Human Being's textual nature shapes his biological destiny.
9. The genetic text is based on DNA as the "wiring diagrams", however, cells are able to use the original genetic data on an individual basis. Epigenetics is responsible for the independence and individuality of cells, their "memory".

10. The second human code is responsive to external factors that can change a person (epigenetic landscape). A person is able to adjust the individual text of life. How a person reacts to external stimuli depends on his biological destiny, for which the second code of human being is responsible.

Limitation and study forward

This study is very promising and interesting, but there are objective difficulties associated, firstly, with the unwillingness of natural Sciences to allow interdisciplinary connections with humanitarian knowledge or intuition of philosophy. The natural Sciences are much closed and have great difficulty responding to any joint projects: genetics does not take seriously information about the gunas; classical philosophy is accustomed to sophistry and rejects interdisciplinary search, and so on. Secondly, there are the difficulties and limitations associated with the lack of the necessary tools of knowledge, methods of human research as a complex interdisciplinary problem. In order to develop methods, we need a team of researchers (geneticists, philosophers, linguists, religious scholars, etc.) which would be interested in such topic and who would be able to think outside the usual, official framework. In the future, this study is planned to expand and develop technologies for using the possibilities of the textual nature of man to realize his ethical potential.

The results of the study can be useful for the philosophical Sciences, human Sciences, for the development of an interdisciplinary approach to the study of a human being as a complex open, self-organizing system. The results can be useful for the development of a dialogical scientific paradigm, a useful relationship between the Sciences of spirit and Science of nature. The results of the study expand the understanding of a human being as a philosophical problem.

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