




**Learning to  
Forgive**

# Health of the *Soul*

Issue Number 04 -  
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The end of the  
dictatorship of the genes  
— We are responsible for  
the choices we make and  
which will reflect in our  
future existences

Salvador Dalí - Landscape of  
Butterfly and Raisin, 1963 - 1964

# Editorial

In this issue, **Health of the Soul** features two articles that were originally published in **Saúde da Alma**, the Brazilian version of Health of the Soul: “**Learning to Forgive**” and “**The End of the Dictatorship of the Genes.**”

Forgiveness has been the subject of many scientific articles, especially on behavior and spirituality, published in medical journals since the early 1980s. However, in the last two decades the number of articles on this topic has escalated. In his article “Learning to Forgive,” Dr. Proverdel discusses the difficulties and the benefits of forgiveness. Forgiveness has a healing power, and may change the genetic predisposition to certain diseases.

This leads to the next article featured in this issue: “The End of the Dictatorship of the Genes,” authored by Dr. Carlos Roberto de Souza. Research on Epigenetics has shown that meditation, thoughts, feelings, emotions, and positive attitude, among other factors, can change gene expression. Keeping in mind that merit and our reincarnation plans are important factors in the equation, we learn that we are not necessarily a direct product of our genetic code. This knowledge frees us from fate and gives us hope!

May these two articles inspire us to reflect upon Chico Xavier’s premise that “Nobody can go back and build a new beginning, but everyone can restart and build a new end.”

Sonia Doi, MD, PhD  
President, SMA-US

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## Learning to Forgive

Dr. Atilio Proverdel

Interview by Eleni Gritzapis

One day, Saint Peter approached Jesus and asked: *“Lord, how many times must I forgive my brother when he has sinned against me? Up to seven times?”* Jesus responded: *“I do not say to you up to seven times, but up to seventy times seven.”* (Mt. 18:21-22)

However, the great difficulty that most people face when confronted with Master Jesus’ teachings is how to forgive. Many confuse forgiveness with forgetting; and it was to dispel this misconception that Atilio Proverdel presented the workshop *Learning to Forgive* during MEDNESP 2011<sup>1</sup>.

Dr. Proverdel is an associate professor at the Federal University of Espírito Santo, Brazil, with an undergraduate degree in mathematics and computer science, a masters and doctorate degree in electrical engineering. He is the coordinator of the Academic Department of the Spiritist Medical Association of the State of Espírito Santo, and also the coordinator of the Project Sauesp - Virtual Library in Health and Spirituality (available at [www.sauesp.org.br](http://www.sauesp.org.br)). Dr. Proverdel will address the topic on learning to forgive and the benefits of forgiveness, self-forgiveness, as well as the connection between resentment and obsession.

### ***Why do most people find it so difficult to forgive?***

Due to our imperfections, especially pride and selfishness, we might have enormous difficulty in dealing with offenses against us, causing resentment to linger long after the insult occurred.

Although we realize the harmful effects of prolonged anger, because we do not yet have total control over our actions, we waste excessive energy to resentment, and thus continue to wear off our physical and emotional wellbeing. Forgiveness presents itself as a challenge to deal with emotions differently, and to change the way we see our fellow man and the situations that make us suffer. Naturally, forgiveness requires self-awareness.

Another important difficulty is precisely the lack of understanding what forgiveness is. Instead of offering means to overcome resentment and free ourselves from painful experiences of our past, our notion of forgiveness often gives way to erroneous ideas that compromise our ability to maintain serenity and clarity in the face of challenges and undesirable events. For example, to forgive is not the act of approving negative behaviors, denying our anger, or much less forgetting painful events. By forgetting, we mean in reality to refrain from constantly remembering or occupying our minds with such facts.

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1 MEDNESP: *Bi-annual congress organized by the Brazilian Spiritist Medical Association.*

### ***How can we teach the act of forgiveness?***

In general, lasting resentment arises when we experience an offense or undesired event very personally, holding someone else responsible – the person who offended us – for how we feel. As we constantly think of these painful events, we become fixated in a cycle of suffering. Therefore, the act of forgiveness should be exercised at each step of the development of resentment.

Calmly realizing that our suffering is relatively common, and that an offense may not have been committed with the direct intent of hurting us, can help us understand suffering as less personal. Additionally, it is also important to assume

responsibility for our own feelings, as well as to reexamine rules that we may be demanding be complied with by others or by life circumstances.

### ***Why does forgiveness in family circles appear more difficult than in other relationships?***

In addition to the general difficulties already discussed, the characteristics of family life certainly influence the act of forgiveness in that environment. If family members are spirits united by affinity and mutual affection, disagreements are less intense, occur less frequently, and the degree of difficulty for the practice of forgiveness is much less. On the other hand, if there are antagonistic or dissimilar spirits within the home environment that need to readjust to one another, the opposite is true and it becomes more difficult to deal with offenses. Resentments arise much more readily and also tend to persist. Unlike the relationships with people outside the family circle, where distance may resolve many situations, it becomes much more difficult in familial relationships. Often, guilt and anger from previous lives surface. Certain roles are reversed and new actors may come into the picture. Thus, it is important to understand that, more than in any other social circle, forgiveness and reconciliation within the family should be given considerable attention, as they create opportunities to learn, heal, and break the cycles of hate.

### ***How can outrage and resentment influence forgiveness?***

Resentment originates when something we didn't wish for occurs – for example, a betrayal or dishonesty – or when something that we wanted



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does not come true – such as a promotion at work. The level of these events can range from insignificant to terrible, like the loss of a loved one to a traffic accident, and their impact can also vary from person to person, given the unique way we each deal with life. To the same type of offense some persons adapt relatively well, while others remain imprisoned for years hurting, with chronic resentment, and immense difficulty moving forward.

Logically, the more serious the situation, the more difficult it is to practice forgiveness. It is common for us to experience difficulty in forgiving, even in simple situations. Therefore, it all depends on our effort to face offenses in a less personal manner and to let go of the past to alleviate the suffering of the present, and consequently reduce our fear of the future.

### ***What are the benefits of forgiveness?***

They are innumerable. Initially, forgiveness represents our liberation from the past, which cannot be modified. This brings a great relief. We deal better with our painful memories and in turn have a greater ability to move forward. In addition, by practicing forgiveness, we are helping to encourage others that might be going through similar situations. Overcoming hurt feelings and resentments also helps us to enjoy a better quality of life, get along better with our family, our circle of friends and society in general. We become less spiteful, less grumpy, less anxious, and less depressed.

Several scientific studies, conducted mainly within the last two decades, clearly show that learning to forgive is beneficial to our physical and mental health, thus confirming its healing powers. Research attest to the positive impact forgiveness and other positive emotions have on stress, grief, the cardiovascular system, chronic pain, longevity, depression, psychological well-being, sleep, and on the immune system. There are also studies that

confirm the benefits of forgiveness under other circumstances, such as adolescents with negligent parents, women abused in childhood, and cheated partners in an unfaithful relationship.

### ***Why are most cases of spirit obsession linked with difficulty to forgive?***

Adversaries that have difficulty in forgiving and go through life hurting one another inevitably carry their disagreements and desire for revenge into the afterlife and into future existences, where they continue to persecute each other. In that context, we emphasize Jesus' message: *"Settle as quickly as possible with your adversary while you are on your way to court so that he will not hand you over to the judge, the judge will not turn you over to the guards, and you will not be thrown into prison. Amen, I say to you, that you will not be released until you have paid the last penny."* (Mt. 5:25-26).

In Chapter X of *The Gospel According to Spiritism*, in the section "Reconciliation with One's Adversaries" Allan Kardec clarifies that *"an evil spirit awaits the one against whom it wishes evil to easily torment it, striking it in its interests or dearest affections. In this fact one can see the cause of most cases of obsession, especially those that display a certain gravity such as subjugation and possession. Obsessed and possessed persons are therefore almost always victims of a prior revenge which they probably caused by their conduct."* Further in this section, Kardec affirms that *"when Jesus recommends being reconciled as quickly as possible with one's adversary, it is not only with a view to mitigating discords in the course of one's current existence, but rather to keep them from continuing in future ones."*

### ***How can we practice forgiveness in our daily life?***

Different approaches and psychotherapeutic methods have been proposed and applied to by

specialized professionals, researchers, and forgiveness scholars. Some resources are available in the “basic kit” of forgiveness found in the following books: *The Power of Forgiveness* by Dr. Fred Luskin; *Forgiveness: A Bold Choice for a Peaceful Heart* by Dr. Robin Casarjian; and *Cura e Autocura* [Healing and Self-healing] by Dr. Andrei Moreira.

Because forgiveness is also a way of life and we have the option to accustom ourselves to it, we can begin with everyday situations, which are simpler but often create the most serious and painful situations. If at the end of the day we question our conscience, as Saint Augustine suggests we do in question 919 of *The Spirits’ Book*, we will perceive and acknowledge various circumstances where we could have acted differently and with less suffering, that is, react with less anger; not take an offense so personally; focus more on positive emotions instead of resentments; reflect; be kinder to ourselves; and recognize that our fellow man is a being worthy of respect and love. In such situations – for example, during breakfast with family, in traffic, business transactions, at school, at work, in our conversations throughout the day, in our contact with strangers – we have the choice to appreciate the positive aspects of life, and exercise and value patience, gratefulness, love, and the power of kindness. Consequently, possibilities abound to begin practicing forgiveness and making it a reality in our lives.

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Forgive



# ANNOUNCEMENTS

## Announcements

The **SMA-US** will be represented by *Dr. Sonia Doi* in two upcoming events:

### **Catch the Wave!!**

#### **Mongan Method HypnoBirthing®**

The Wave of the Future in Birthing Education



**The HypnoBirthing Conclave** ([http://hypnobirthing.com/2013\\_Conclave.htm](http://hypnobirthing.com/2013_Conclave.htm)) in Washington, DC on October 4 - 6 of, 2013. Dr. Doi and Lynnete (Lakshmi) Landa will present a seminar entitled: *"Assisting the Development of the Incarnating Soul"*



## **BRITISH CONGRESS ON MEDICINE AND SPIRITUALITY**

**Bridging Medicine and Spirituality**

**4<sup>th</sup> British Congress on Medicine and Spirituality** (<http://www.medspiritcongress.org>) in London, England, on November 9 - 10, 2013. Dr. Doi will present a lecture entitled: *"Psychoneuroimmunoendocrinology: Mechanisms of Disease and Cure"*





## The end of the dictatorship of the genes – We are responsible for the choices we make and which will reflect in our future existences

Dr. Carlos Roberto de Souza

Interview by Giovana de Campos

Dr. Carlos Roberto de Souza, anesthesiologist and president of AME<sup>1</sup> - Campina Grande, in the state of Paraíba, Brazil, spoke during the 2011 MEDNESP<sup>2</sup> about the new discoveries on molecular biology, presenting a topic that challenges the Darwinist view centered on the gene, altering the ideas about heredity and evolution. The end of the dictatorship of the genes brings much information regarding the current advance in biology studies, corroborated with data already presented by spiritual authors that only now science is starting to confirm.

### ***When did the first studies begin in the area of genetics and how have they evolved to the present days?***

We may consider that the study of genetics, i.e., the laws governing heredity, began with the Austrian monk Gregor Johann Mendel (1822-1884), utilizing round and wrinkled peas, in a controlled crossing between plants with different characteristics, coining the laws that today bear his name. His work took nine years, was published in

1866 and sent to several renowned biologists at the time. However, it was forgotten for 34 years, and only in 1900 his ideas were rescued with independent results obtained by three botanists: the Dutchman Hugo de Vries, the German Karl Correns, and the Austrian Erich von Tschermak, all citing Mendel's work (1). The next impulse of genetics occurred in 1953, when the British physicist Francis H. C. Crick and the U.S. geneticist James D. Watson published in the journal *Nature* the discovery regarding the three-dimensional, double helix structure of the DNA molecule. Biologists at that time believed they were finding the “molecule of life,” since the DNA was the molecular basis of genetics and responsible for the transmission of biological information to the offspring. In the 70s, with the advent of genetic engineering, a rapid expansion of this knowledge occurred, culminating in 1990 with the beginning of the genome project, coordinated by Dr. Francis Collins, to decipher the complete sequence of the human DNA molecule.

1 Brazilian acronym for the country's Spiritist Medical Associations.

2 MEDNESP: Bi-annual congress organized by the Brazilian Spiritist Medical Association

### ***What is gene and what is its main function?***

The gene is the fundamental unit of heredity (2). Each gene is a segment of the DNA (deoxyribonucleic acid) molecule, composed of a specific sequence of nucleic acid, whose main function is to transmit the information that determines the sequence of amino acids necessary for the formation of proteins or control of a trait. Biologically, each one of us is the sum of our proteins and the genes contain the instructions that control their production.

### ***How does the transmission of genetic information occur?***

Genetic information is stored in the cell nucleus, in a sequence of four units of the DNA molecule, the nucleotides (adenine, cytosine, guanine, and thymine), ordered in pairs. The process obeys the gene on-off mechanism by which the genes, through several factors, are activated or deactivated. It begins in the cell nucleus with the transcription, that is, the duplication of a segment of the DNA, creating a new molecule called messenger RNA (ribonucleic acid). This contains information coded in blocks of three pairs of nitrogen bases, called codon, hence the term “genetic code,” which in the cytoplasm of the cell will be translated into a protein.

### ***What does the “dictatorship of the genes” mean?***

It means that the genetics orders, commands, and determines what we are. Also known as genetic determinism, the central dogma of genetics, it states that each gene produces a protein which in turn generates a function or trait. Currently, however,

this idea is being replaced by new discoveries in molecular biology and new concepts of epigenetics, in which the evidence demonstrates that there is no causal relationship between the DNA sequence and the trait presented by the individuals. Genes are probabilistic rather than deterministic, says Michael Rutter, the psychopathologist from King’s College (3).

### ***Is our fate, as living beings likely to get sick and die, governed only by genes?***

No. According to Dr. Kazuo Murakami, in his book *The Divine Code of Life* (4), up till now we are unable to establish clearly what is determined by genetic factors, and what is due to other stimuli. Incidentally, this thought is now corroborated by other authors, such as David Shenk, in the book *The Genius in All of Us*, where he states that the genes of each person interact with the climate, altitude, culture, food, language, customs, spirituality, in short, with everything that surrounds him/her, producing trajectories of unique lives (5), i.e., the individual genes and the surrounding environment interact to start a complex process of development that determines the human personality, according to Dr. Eric Turkheimer from University of Virginia (6).

### ***Can our choices, our thoughts and our emotions interfere with this equation?***

It certainly can. Each new environment, as well as each new mental or behavioral attitude, modifies the development course, affecting the future gene expression and so forth, altering the progress and the evolution. The Spiritist Doctrine

tell us that we are a unique and individualized consciousness in the universe, possessing own will, which is the maximum expression of free will. However, we are also responsible for the consequences generated by the choices we made and which will reflect in our future lives, obeying the principles of the Law of Cause and Effect – the Moral Law that governs the evolution of the Eternal Spirit. In this line of thought, says Dr. Bruce H. Lipton in the book *Biology of Belief*, all organisms, including humans, communicate with each other and read the environment through the energy fields; and thoughts, being the energy of the mind, directly influence the way the physical brain controls the body physiology (7). Every day, in every way possible, we help to determine which genes will be activated or not. In sum, our life interacts with our genes in a process of dynamic development, working the traits, qualities, and functioning of our body, as a reflection of our own mental life (consciousness). The individual responsibility for the definition of the existential circumstances is confirmed in the revelation of the Spirit André Luiz in *Evolution in Two Worlds*

when he quotes the existence of biophores that are “unities of psychosomatic force that act within the cytoplasm, projecting on the cells, and consequently on the body, the mental states that will better or worsen their situation according to their good or bad choices,” allowing the worsening or softening of the karmic circumstances (8), i.e., leaving to the free will of the spirit the opportunity to change its evolutionary path and redo its destination.

### ***What are the factors involved in the gene activation?***

Initially, the genes themselves; secondly, the mind through our thoughts, sentiments, and emotions; the environment (internal and external); the cultural and geographic aspects, i.e., the birth and living places; and temporal (when he/she was born) and educational factors. In their book *Evolution in Four Dimensions*, geneticists Eva Jablonka and Marion J. Lamb (9) organized these factors in four dimensions – the Inheritance Systems – interacting between themselves and responsible for the transmission of traits. The first dimension is the genetic (DNA) through the variations promoted by sex and random mutations in the adaptive process by the natural selection. The second dimension is the epigenetic, the transmission, unrelated to genes, of the cellular information by internal and external environmental stimuli. The third dimension is the behavioral, characterized by lifestyle, defining the social learning, and, lastly, the symbolic dimension determined by language and other forms of communication. These multiple factors, alone or associated,

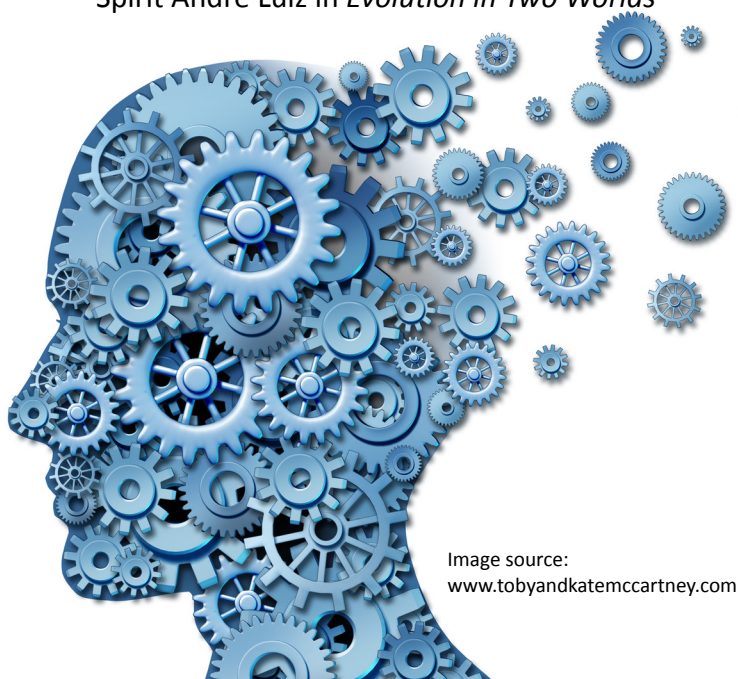


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directly interfere in the process of gene activation, significantly altering the gene expression, i.e., the expression of a trait.

***How many genetic diseases have been already detected? Is it true that more than a thousand genetic diseases can now be prevented?***

We can consider that among the genetic diseases those of monogenic causes represent 2% (sickle cell anemia, cystic fibrosis, and Tay-Sachs), while others, related to hereditary factors account for the remaining 98%. In the latter, the activation of several genes is involved, constituting a pattern of “gene networks,” as well as the influence of lifestyle and environment. It is premature to specify how many genetic diseases can be prevented, because according to Dr. Eva Jablonka’s theory, in the above mentioned book, the genome sequencing can give us information about our DNA and even tell us things about our genes, but the interrelationships between these genes and the environment are so complex that we cannot simply add their average effects and from that predict the strengths and weaknesses of a person (10). What we do need is to become aware of the beneficial influence of our thoughts and our positive attitude, promoting the gene transcription that is important for the prevention and maintenance of the healthy biological functions of our body.

***Taking into account the possibility that the gene manipulation can prevent diseases, could that lead to eugenics? And what about the incarnatory trials?***

The eugenics misguided dream has been the desire of many scientists and even dictatorial rulers, responsible for many atrocities committed against human beings, as recorded in the history of humanity. David Shenk in *The Genius in All of*

*Us* explains that humans are different from each other not only because of their relatively few genetic differences, but also because each moment of their lives influences actively the expression of their own genetic traits (11). Analyzing this issue from the spiritual perspective and considering the evolutionary trajectory of the spirit as a unique individuality, eternal and immortal, heir of itself and responsible for building its future, we clarify it further with the teachings of the Spirit Emmanuel, in the book *The Consoler* (psychographed by Francisco C. Xavier). It states that the laws of genetics are governed by extrasensory factors, and that the genetic combinations depend on the achievements, trials and evolutionary position of the incarnated spirits, establishing that the vocation or faculty is an attribute of the spiritual individuality and not of the genes (12). The reincarnating spirit, at embryogenesis, is the one that “selects” the egg cell and sperm that have the genome compatible with its evolutionary needs, and which will allow it to experience the manifestation of reeducating trials and expiations.

***Do the genes control it or does the mind choose the corporeal garment it commands during a whole existence?***

The authors Hawley, Mori, White et al. apud Lawrence Harper, professor of genetics at the University of California, state that the traits of each type of tissue are determined by the pattern of gene expression, that is, by the activation and deactivation of the genes in the cells (13), which leads us to understand why, although all cells in our body have the same genome, they perform such diverse and specific functions, in accordance with the cell differentiation occurred in the formation of the tissues, organs and organ systems. In *Evolution in Two Worlds*, the Spirit André Luiz reveals that “after fertilization . . . the spirit,



*under the command of its own will, determines with its mere presence or influence in the maternal body the most complex endomitotic phenomena inside the egg, laying the foundations of its own destiny “ (14), and that the body naturally inherits from the body, according to the mental dispositions and affinities that will define the physical body required for each incarnation. With this revelation, we observe that the laws of heredity are respected and activated by the evolutionary ascendant of the eternal spirit. Beginning at embryogenesis, through the Biological Organizing Model<sup>1</sup>, the spirit promotes the differentiation and specification of the cells, as well as transfers to its future body the karmic predispositions it accumulated as a result of its actions and achievements, attained in the wake of time through the use it made of its own free will throughout its multiple existences.*

***If an individual has a genetic predisposition to a certain disease, can the environmental factors prevent it from developing?***

The new findings in molecular biology challenge the evolutionary view centered on the genes. The concept that the genetics directs and determines all our biological functions and traits is changing. Today we know that a complex sophisticated mechanism is necessary for maintaining the structure of DNA and its replication, as Dr. Evelyn Fox Keller sets forth in her book *The Century of the Gene*, stating that the gene does not “choose” alone which ones will be activated or deactivated, but that the responsibility for this decision resides in other places, in the complex regulatory dynamics of the cell as a whole (15). Hence, genes and genetics can no longer be considered in the same manner as in the past. The stability rests on the system as a whole, and not on the gene itself. No genetic basis is laid before the environment

comes into the scene, says David Shenk in *The Genius in All of Us*, but the gene-environment processes of interaction generate a developmental pathway specific for each individual. Everything is interactive, in the sense that no arrow points uninterruptedly from the cause to the effect. Dr. Carl Zimmer, in the article “*Now: The Rest of the Genome*,” published in the New York Times, writes that “[o]ur DNA is studded with millions of proteins and other molecules, which determine which genes can produce transcripts and which cannot,” (16) and that the progeny cells inherit these molecules together with the DNA, demonstrating the possibility of epigenetic influences on gene expression. In fact, once more the Spirit André Luiz states in *Evolution in Two Worlds* that “[e]very permutation of chromosomes in the uterus is invariably presided over by ordinary or extra-ordinary magnetic agents, depending on the type of existence (for new or recapitulated experiences), with the keys of heredity attending to its purposes.”(17). Individuals born with a genetic tendency to develop a disease may never present its symptoms if environmental factors are not favorable to this process. Therefore, the karmic determinants generate morbid predispositions that originate the genetic predispositions to certain diseases. They may appear or not, according to the new choices we make in the present existence, including our thoughts, sentiments, emotions and attitudes, thereby exercising the freedom of conscience and thought that the divine laws grant to the eternal spirit (*The Spirits’ Book*, questions 833-835).

***The Genome Project has brought numbers that surprised the scientific community by the amount of active genes presented in the human being. What else did this project demystify?***

The first scientific axiom to lose its value was the belief that for each existing protein in the

1 The perispirit.



organism a specific gene would be necessary. It was expected to find over 100 thousand genes, since we have over 100 thousand proteins. The surprise came with the verification, at the end of the genome project, of the existence of 23 to 25 thousand genes (18). The findings showed that only 1.5% of our DNA is responsible for protein decoding, and that only 5% to 10% of our genes are active, working through the on-off mechanism. Another myth that collapsed was that the cell nucleus lost its exclusive status as commander of the cell function. A stunning discovery of the human genome, according to Dr. Francis S. Collins (19), the director of the Human Genome project, comes from the comparison between members of our species. At the DNA level, our similarities reach 99.9% identity, regardless which two individuals we choose from the whole world to make comparisons, thus characterizing an extraordinary low genetic diversity. Another surprise came with the comparative study of the genomes of other organisms, as the similarities that were found show evidence that inevitably we humans share a common ancestor with other living creatures. Lastly, states Dr. Gil Ast, from the University of Tel Aviv (20), the genome is versatile, i.e., in a classical gene expression, a DNA sequence is transcribed in one copy of a single RNA strand, then the mechanism of cellular splicing (cuts into specific pieces of RNA molecule) removes and discards the introns (segments that do not encode proteins) and

connects the exons (part that encodes the protein), in a final version of the messenger RNA. However, in complex organisms, the initial RNA transcript may undergo alternative splicing – the exons are discarded, and the introns or portions of them are kept – to produce multiple messenger RNAs and thus different proteins from the same gene.

### ***Who gives the command in the cell and how does this occur?***

In 1958, through the mediumship of Francisco Cândido Xavier, the Spirit André Luiz in *Evolution in Two Worlds*, revealed that “*the human mind almost fully controls the body in which it expresses itself . . . through the coordination of its own impulses over the albuminoid elements of the cytoplasm . . . which ultimately is the interstitial element of connection for the physiopsychosomatic forces, compelling the cells to do the work they need to express themselves,*” and that “*cells as rudimentary intelligent principles . . . take on different forms . . . obeying the simple or complex thought that controls their existence*” (21). This information is innovative because after the discovery in 1953 of the DNA molecule containing instructions for the proteins formation, the traditional view of biology established the nucleus as the place where the genetic material is stored, like the



command and control cockpit of the cell function. However, in recent years, molecular biology is undergoing a revision of concepts in relation to new revolutionary discoveries. Today, it is known that the DNA exists also in mitochondria and in chloroplasts, the organelles located in the cellular cytoplasm. The interconnections between the genes and the extracellular factors reveal the complexity that exists in cellular function, determining that its control lies on the cellular dynamics as a whole. Dr. Michael Behe in his book *Darwin's Black Box* proposes the theory of an intelligent design to explain cell function (22). This idea is shared by other authors, such as Dr. Amit Goswami, who states in his book *Creative Evolution* that an intelligent purpose of life suggests that biology must be understood with the sentiment, meaning and character proposed for life and with the idea of a creator or designer (23). To realize how this control occurs, perhaps we need to have a radically new knowledge, such as that revealed by quantum physics that require from us new forms of thoughts. In an article published in 2000 in *Nature*, Pophrist and Goodman affirm that the laws of quantum physics, and not those of Newton, are the ones that control the molecular movements that create life (24). The mathematician Roger Penrose and the anesthesiologist Stuart Hameroff, supporters of this idea, developed a theory in which quantum processes inside the protein structures of the microtubules (tubulin) control their form, which, in turn, controls the actions of the neuron and muscle and our behavior (25). The proteins are the machines existing in the living tissue that build the structures and carry out the chemical reactions responsible for cellular function and necessary to life. Dr. Michael Behe, a university professor, says that it is the pleated form and the exact positioning of different types of amino acids that determine the protein function (26). This

thought is also proposed by Dr. Bruce Lipton, who states that the changes of the electromagnetic charge of the proteins, not the DNA, are responsible for the movement that generates their behavior (27). Therefore, the change of the protein form would be the point of amplification between the quantum world and our interference in the classical world, in everything that humanity does, good or bad. That thinking is consistent with what the Spirit André Luiz proposes in the above mentioned book (28), that is, that *"the junction of physical and spiritual forces [are maintained] through the cellular nucleus [the structure composed of microtubules], at which point an electromagnetic mental impulse occurs. This impulse causes the chromosomes to move from the cell's equator to its poles, coining the laws of heredity and affinity."* Thus, we observe that the command of the cellular functions is not exclusive to any isolated structure, but rather to multiple factors that harmoniously work controlling the cellular dynamics, under the mental command of a superior intelligence which is the spirit.

### ***What is the importance of Jesus' message for the evolution of the spirit?***

Since our thoughts, sentiments and emotions influence the DNA transcription, altering gene expression, the message of love that Jesus bequeathed to humanity – and the greatest code of moral principles known to the present day – turns out to be of immense importance. Teaching us the value of forgiveness, unconditional love and the cultivation of good sentiments, such as happiness, enthusiasm, faith and prayer, they stimulate the transcription of key genes for the evolutionary process of the spirit, activating those that are responsible for the achievement of full health. Positive thinking can activate our genes, stimulating the brain and body to produce beneficial hormones, affirms Dr. Kazuo Murakami, in the

book *The Divine Code of Life* (29). The “love one another as I have loved you” promotes considerable psychic changes, followed by significant biological alterations in the human being, directing him/her towards the secure evolutionary journey and the correct pathway to be followed. In the words of Dr. Francis Collins, evolution as mechanism can and should be real. However, it says nothing about the nature of its creator. For those who believe in God, there are now reasons to have more and not less admiration (30). We live according to the laws of nature and simultaneously we are involved in their own creation. When we are in harmony with these laws, the genes work to protect life. The genetic code is the language that the Supreme Creator uses to create life, granting to the being as eternal spirit a co-creative participation in the elaboration of the forms. As stated by Dr. Bruce H. Lipton, in the above mentioned book (31), we are not victims of our genes but rather masters of our own destiny, capable of creating a life full of peace, happiness and love.

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