The Cosmic-Trichotomic Parallelism of the Genetic Code
An Aid to Situating Heredity in Reality

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Zusammenfassung

In dieser Arbeit wird nach numerischen, proportionalen und strukturellen Ähnlichkeiten zwischen dem klassischen geozentrischen Kosmos und dem genetischen Code gesucht. Es werden zwei Tabellen des genetischen Codes vorgestellt: Die Standardtabelle und eine neue Tabelle, die auf Synonymen der dritten Position basiert. Der Vergleich zeigt eine Parallelität zwischen dem genetischen Code und dem klassischen geozentrischen Kosmos. Der genetische Code beinhaltet zwei Projektionen des klassischen Kosmos, für deren Verständnis Rudolf Steiners Darstellung der kosmischen Evolution wesentlich ist. Die kosmische Evolution ist auch die menschliche Evolution, und die Zeichen dieser Evolution sind in den beiden Projektionen sichtbar. Die Diskussion stellt Gründe für den Mangel an Veröffentlichungen zum Thema des Artikels dar und erörtert die Universalität des Codes und die Verwurzelung der Vererbung in der Realität.

Summary

This article searches for numerical, proportional and structural similarities between the classical geocentric cosmos and the genetic code. Two genetic code tables are presented: the standard one and a new table based on third position synonyms. The comparison shows a parallelism between the genetic code and the classical geocentric cosmos. The genetic code entails two projections of the classical cosmos. Rudolf Steiner's description of cosmic evolution is essential for an understanding of these two projections. Cosmic evolution is also human evolution and signs of this evolution are visible in the two projections. The discussion presents reasons for the lack of publications on the subject of this article and discusses the universality of the code and how heredity is rooted in reality.

Introduction

Starting from the idea of a combined cosmic-human evolution as introduced into anthroposophy by *Rudolf Steiner* (1904, 1910 and 1921a, b), the author investigated to what extent the chemistry of life shows numerical,

proportional and structural similarities to humans, to divine standards and to the classical geocentric cosmos (*Struyf* 2018–2022). The present article focuses on the similarities of the standard (universal) genetic code to the classical geocentric cosmos including divine and human related properties. The aim of the article is to investigate structural attributes of the genetic code – the result of standard research – in order to establish an analogy to the classical geocentric cosmos' meaning for terrestrial and human evolution as indicated by Steiner. It is shown that the similarities can be understood in the light of the combined cosmic-human evolution theory according to anthroposophy. Statements further on in the article are hypotheses. It is up to the reader to evaluate if they are convincing in view of the data presented.

The Chemistry of the Genetic Code

Chemists consider atoms to be the building blocks of all matter including that of living organisms. Proteins are the most important (performing) molecules in the chemistry of life. A protein consists of one or more polypeptide chains. The atomic building blocks of polypeptides are hydrogen (H), carbon (C), nitrogen (N), oxygen (O) and sulfur (S). Polypeptides are long chain molecules in which the building blocks are grouped into amino acids. Proteins/polypeptides have twenty different amino acids (Figure 1). The twenty amino acids differ in the composition of their side chain. Polypeptide chains differ in the sequence of the amino acids in the chain and in the chain length. The chain length can range from a few up to several hundred amino acids. There are about ten thousand different proteins in one cell. The number of protein encoding genes in the human genome is between 19,000 and 20,000 (*Hatje et al* 2019). Not all of these genes are expressed in each cell.

The DNA of the chromosomes in the cell core contains the amino acid sequence information for all the proteins/polypeptides in the cell. DNA is a much longer chain of nucleotide units symbolized by A, C, G and T. The atomic building blocks of the nucleotides are hydrogen, carbon, nitrogen, oxygen and phosphorus (P). A sequence of three nucleotides in DNA, called a codon, encodes one amino acid. There are sixty-four different codons. Some codons encode a stop of the protein synthesis. Because there are many more codons than amino acids, many codons are synonyms. Synonym codons are different codons that encode the same amino acid. Some amino acids have up to six synonym codons.

The cell ribosomes catalyze the formation of polypeptides. How does the DNA information get to the ribosomes for protein synthesis?