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The First Scientific Journal in T-Consciousness Research
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General Considerations of This Issue

1- Introduction

In the 1980s, Mohammad Ali Taheri proposed the existence of novel non-material/non-energetic fields called Taheri Consciousness Fields or T-Consciousness Fields (TCFs). In his theory, T-Consciousness is considered as one of the three constituent elements of the universe, apart from matter and energy. According to Taheri, there are various TCFs with different functions that are the subcategories of a network of universal internet called the Cosmic Consciousness Network (CCN). The major difference between the theory of TCFs and other theoretical concepts about consciousness is related to the practical application of TCFs. T-Consciousness Fields can be applied to all living and non-living systems, including humans, plants, animals, microorganisms, hard and soft materials, etc.

In 2020, Mohammad Ali Taheri, the founder of Erfan Keyhani Halqeh school of thought, introduced a new science as a branch of this school. He coined the term *Sciencefact* for this new science as it utilizes scientific investigations to prove the existence of T-Consciousness as an irrefutable phenomenon and a fact. Science focuses solely on the study of matter and energy; Sciencefact, by contrast, explores the effects of the non-material/non-energetic TCFs on the material world, and it has provided a common ground between the world of matter/energy and the non-material/non-energetic world of Consciousness by facilitating the conduction of reproducible laboratory experiments in various scientific fields, and by utilizing the scientific approach to prove the existence of T-Consciousness Fields.

The influence of the TCFs begins with the connection between the CCN, as the consciousness of the whole (the universe), and the subjects of study [establishing a "Consciousness Bond" between the two]. This connection called "Etesal" is established by the Faradarmangar's mind (a certified and trained individual who has been entrusted with the TCFs). The human mind has an intermediary role (Announcer) which plays a part by fleeting attention to the subject of study. The main achievement is obtained as a result of the effects of the TCFs on the announced systems. These fields cannot be directly measured by science, but it is possible to investigate their effects on various subjects through reproducible laboratory experiments.

2- The research methodology in the study of T-Consciousness

It has been founded on the process of Assumption, Argument, and Proof, in which the basic assumption is that the Cosmos was formed by a third and the most fundamental element called T-Consciousness which is different from matter and energy. The argument is that the existence of *T-Consciousness* Fields can be demonstrated by its effects on matter and energy (e.g., humans, animals, plants, microorganisms, cells, materials, etc.). The Proof for this claim is that the scientific verification of effects of TCFs on matter and energy is possible through various reproducible scientific experiments.

3- Research phases of Sciencefact

Accordingly, to investigate and verify the effects and mechanisms of TCFs, the following five research phases (Phases 0 through 4) and the aims of each phase are outlined as follows.

Phase-0 studies aim to prove the existence of TCFs by observing its effects on the subjects under study. The nature of T-Consciousness and what it is will not be addressed in this phase.

Phase-1 explores the varied effects of different TCFs on subjects.

Phase-2 examines the reasons behind the variability of the effects of these fields.

Phase-3 investigates the mechanism of TCFs effects on matter and energy.

Finally, Phase-4 draws significant conclusions particularly with regards to the mind and memory of matter and their relation to T-Consciousness.

4-Methods

4.1 Taheri Consciousness Field application

TCFs were applied to the samples according to protocols regulated by the COSMOintel research center (www.COSMOintel.com). A request for connection to CCN to utilize this field can be placed through the COSMOintel website in the "Assign Announcement" section. This access is available for everyone at no cost. To study and experience this connection, the researchers can register on the site above at any time and report the experiment to the COSMOintel research center. Specific details of the experiment must be provided to the center; for example, the characteristics or number and name of samples and controls must be specified.

The presented experiments were carried out as a double-blind method where lab technicians were completely unaware of TCFs theory, and the Faradarmangar at the COSMOintel research center who established the consciousness bond was unaware of the details of the study. Double-blind is a gold standard that is common in science experiments in the field of medicine and psychology, involving theoretical and practical testing.

4.2 Cell culture

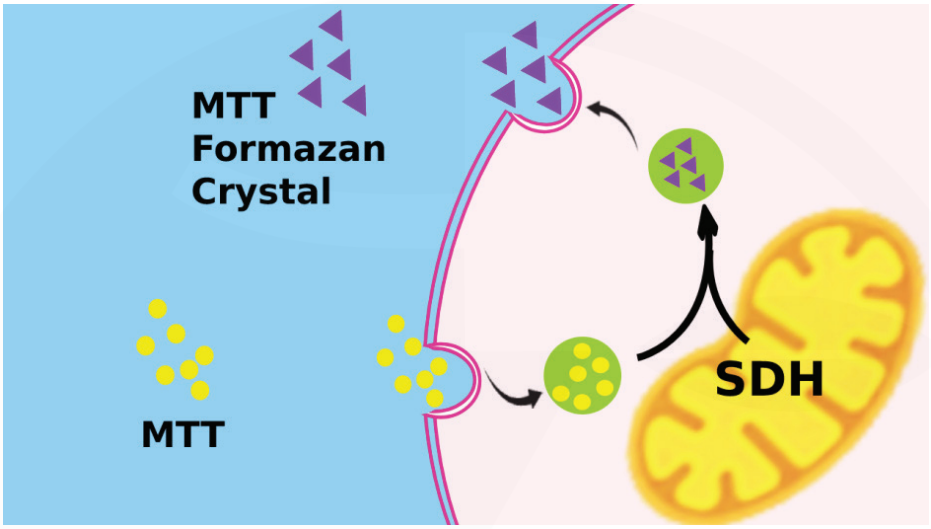
The cell lines used for these studies were purchased from the Pasteur Institute of Iran. Fetal bovine serum and RPMI-1640 were obtained from Roswell Park Memorial Institute (Gibco Laboratories, Grand Island, NY) and diluted to 10% using culture media. Penicillin (100 IU/ml) and streptomycin (100 µg/ml) were also supplemented in the culture media (Serox, Germany). Cell cultures were kept in a humid incubator at 37 °C (Memmert, Schwabach, Germany) with 5% CO_2. Relative humidity is maintained between 95% and 98% by an atomizer system or water reservoir. Cells were in their logarithmic growth phase for all experiments.

Cell culture refers to laboratory methods that allow the growth of eukaryotic or prokaryotic cells in physiological laboratory conditions. Its origins date back to the early 20th century, when it was used to study tissue growth and maturation, virus biology and vaccine development, the role of genes in disease and health, and the use of hybrid cell lines on a large scale to produce drugs. The experimental applications of cultured cells are as many as the types of cells that can be grown in vitro. In the clinical context, cell culture is used in creating model systems for the study of basic cell biology, investigating the mechanisms of diseases and the toxicity of new medicinal compounds.

Segeritz, C. P., & Vallier, L. (2017). Cell Culture: Growing Cells as Model Systems In Vitro. *Basic Science Methods for Clinical Researchers*, 151–172. https://doi.org/10.1016/B978-0-12-803077-6.00009-6

4.3 MTT assay

MTT test was used to evaluate cytotoxicity and cell viability after treatment of TCFs. 3×10^3 cells were implanted in a 96-well culture plate. The effects of TCFs on the viability of sample cells were evaluated using 3-(4, 5-dimethylthiazol-2-yl) -2, 5-diphenyl tetrazolium bromide (MTT). For this purpose, MTT (Sigma, Taufkirchen, Germany) at a concentration of 0.2 mg/ml in RPMI-1640 medium was used. The cells were then incubated at 37°C. After 4 hours the medium was replaced with 100 µl of dimethyl sulfoxide (DMSO) and 25 µl of Sorenson's buffer (glycine 0.1 M, NaCl 0.1 M, pH: 10.5 with 0.1 NaOH (pH 10.5). The cells were exposed to 37°C for 30 min and the microplate reader (Tecan, Sunrise, Switzerland) was used to measure the absorbance at 570 nm.

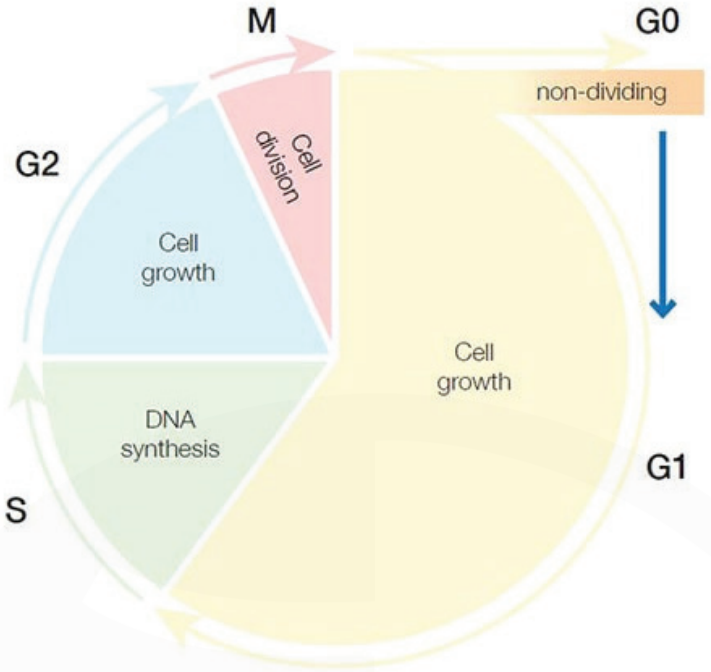


The MTT assay is a colorimetric assay to measure cellular metabolic activity. This is based on the ability of cellular nicotinamide adenine dinucleotide phosphate (NADPH)-dependent oxidoreductase enzymes to reduce MTT tetrazolium dye to its insoluble formazan, which has a purple color. Therefore, this method measures cell survival in terms of reducing activity as the enzymatic conversion of a tetrazolium compound to water-insoluble formazan crystals by dehydrogenases in the mitochondria of living cells, although reducing agents and enzymes located in other organelles, such as the endoplasmic reticulum, are also involved. In the MTT test, a dissolution solution (dimethyl sulfoxide or acidified ethanol solution, or a solution of the detergent sodium dodecyl sulfate in dilute hydrochloric acid) is added to dissolve the insoluble purple formazan product into a colored solution. The absorbance of this colored solution can be measured by spectrophotometer by measuring at a certain wavelength (usually between 500 and 600 nm). The MTT method is one of the most widely used methods for the analysis of cell proliferation and viability.

Ghasemi, M., Turnbull, T., Sebastian, S., & Kempson, I. (2021). The MTT Assay: Utility, Limitations, Pitfalls, and Interpretation in Bulk and Single-Cell Analysis. *International journal of molecular sciences, 22*(23), 12827. https://doi.org/10.3390/ijms222312827

4.4 Cell cycle analysis

Cell cycle progression analysis was performed by staining with propidium iodide. The cells were cultured in 6-well plates (1×10^5 cell per well) and kept overnight in a standard incubator. The cells in the experimental group were washed, separated and harvested, suspended, fixed in 70% ethanol and kept for another 72 hours at 4 °C. Cells were stained at 37 °C for 1 hour using 50 µg/ml PI. The proportion of cells at different stages of the cell cycle was assessed using a flow cytometer in the FACSCalibur system (Milteny Biotec FACS Quant 10).

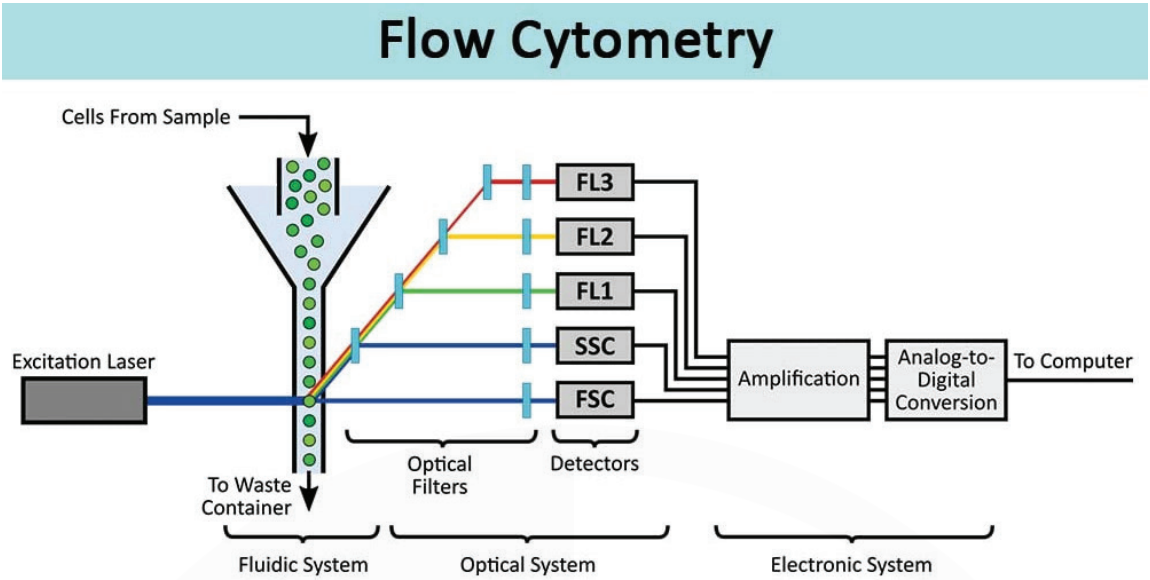


Cell cycle is a set of events that happen in a cell during growth and division. A cell spends most of its time in a phase called interphase, during which it grows (orange phase), reproduces its chromosomes (S phase) and prepares for cell division (G2). Then the cell leaves interphase, undergoes mitosis and completes its division. The resulting cells, which are known as daughter cells, each enter their own interphase and start a new round of the cell cycle.

National Human Genome Research Institute

4.5 Evaluation of apoptosis by flow cytometry

To determine the percentage of apoptotic cells in a cell population treated with FCF and compare it with the control cell population, cells were stained with Annexin-V and propidium iodide (PI) (Sigma-Aldrich, Germany). After being under the influence of FCF for 24 hours, the cells were trypsinized and washed with sterile phosphate-buffered saline (PBS). 100 microliters of binding buffer were added to the sediment resulting from the centrifugation of the cells in a 1.5 ml microtube. Next, 10 microliters of propidium iodide (PI) and 5 microliters of Annexin-V were also added to the contents in the microtube. Then all the contents were mixed slowly by shaking the microtube by hand so that the sediment of the cells was dissolved with the existing materials. In the next step, the samples were incubated at room temperature (25°C) for 10 minutes in the darkness. Finally, cell analysis was performed by flow cytometry (BD Biosciences, San Diego, CA, USA). Data analysis was done by using the software of the device and dividing the points recorded in the two-dimensional curve into four regions Q1 to Q4. To determine the effects of FCF in the direction of inducing apoptosis or necrosis, the percentage of cells located in each area was calculated and reported by flow cytometry software (FCS Express).



Schematic diagram of a flow cytometer showing its fluid, optical and electronic systems

Flow cytometry is a technology that provides rapid multi-parameter analysis of single cells in solution. Flow cytometers use lasers as light sources to produce scattered and fluorescent light signals that are read by detectors such as photodiodes or photomultiplier tubes. These signals are converted into electronic signals that are analyzed by a computer and stored in a standard format data file (fcs.). Cell populations can be analyzed and/or purified based on their fluorescent or light scattering properties. Various fluorescent reagents are used in flow cytometry. They include fluorescent conjugated antibodies, DNA binding dyes, viability dyes, ion indicator dyes and fluorescent expression proteins. Flow cytometry is a powerful tool used in immunology, molecular biology, bacteriology, virology, cancer biology and infectious disease monitoring. The past 30 years have seen remarkable advances that have enabled the discovery of unprecedented detail in studies of the immune system and other areas of cell biology.

https://microbenotes.com/flow-cytometry/

4.6 Statistical analysis

Data were analyzed using GraphPad Prism software version 6.0, San Diego, (CA). All values are expressed in the form of Mean ± standard error and all analyses were repeated at least three times. To determine the significance of the differences, t-test and analysis of variance (ANOVA) tests were used with a p-value of <0.05 considered as significant.

In statistical analysis, when you perform a hypothesis test, the p-value helps you determine the significance of your results.

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Hypothesis testing: one of the main components of research studies is called hypothesis testing. Hypothesis testing is a technique that uses data to confirm or reject a claim about a population. For example, a politician may claim that 80% of people agree with him - is this really true? Or a delivery company may claim to deliver the product in 30 minutes or less. Is this really true?! Likewise, clinical science researchers always use hypothesis tests; on determining whether a particular drug is effective or not, or whether the new drug is more successful in terms of side effects compared to the existing drug and... Parameters related to a population that are often subjected to hypothesis testing are:

- Population average (is 2 hours as the average drug effectiveness time really correct?)
- Population ratio (is it true that 80% of people will experience successful treatment by taking medicine?)
- the difference in two averages or two proportions of the population (is it true that the average effective time is better than the same drug? Or that the percentage of successful treatment is higher in men than in women?)

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Therefore, hypothesis tests are used to test the validity of claims made about a population. Any claim that is being tested is called a null hypothesis. An alternative hypothesis is a hypothesis that you would believe if it were concluded that the null hypothesis is false. All the evidence in the evaluation is in the test, our data and the statistics that go with it. All hypothesis tests ultimately use a p-value to measure the strength of the evidence (what the data tell you about the population). The value of p is a number between 0 and 1 and is interpreted as follows:

- A small p-value (usually ≤ 0.05) indicates strong evidence against the null hypothesis, so you reject the null hypothesis.
- A large p-value (>0.05) indicates weak evidence against the null hypothesis, so you cannot reject the null hypothesis.
- P-values very close to the threshold (0.05) are considered borderline results (the claim may be accepted or rejected on both sides).

Deborah J. Rumsey (2016). Statistics For Dummies, 2nd Edition ISBN: 978-1-119-29352-1