

Research Article

Thought Experiment: from Phenomenology to Transcendental Meditation and Dream about the Meaning of Time

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This research paper explores the concept of time through introspective meditation and dream analysis, based on the philosophical approach of phenomenology of perception. The author engages in a mental experiment to reflect on the meaning of time and its different perceptions. The study involves, as participant, the author himself, who explores time subjectively and objectively, comparing it with clock measurements. Through conscious introspection and dream analysis, the research reveals that time appears to be relative during meditation and dreaming, slowing down compared to objective clock time. The findings highlight the complex and interconnected nature of time perception in human consciousness.

Introduction

Time has always been a mystery as well as an inspiration to think and reflect on experiences and experiences throughout my life. Sometimes I feel rushed and I perceive it with anguish at the imminence of carrying out daily or professional tasks assumed with goals at times that are sometimes prematurely established.

I am also pleased to declare that in moments of harmony in which everything seems to flow without obstacles and interruptions, my mind clears up and my thoughts become sharper. I can reflect and chain sensations, feelings, perceptions, images and ideas; by incorporating them into a single thought or finding common concepts and meanings in a given semantic field, I see everything more clearly and can find links previously undescribed and possibly new to me, or perhaps new knowledge.

I experienced these experiences in a network of questions and arguments around a simple and open question: What is time? If memory serves me correctly, it seems to me that we were in 2015 and the invitation to participate came from the Research Gate (RG) network. Shyly, but with the audacity of the one who "knows nothing and fears little" I "threw myself into the ring" (colloquial of the spontaneous ones who enter a fenced and round area where "heifers are fought" or bulls and horses are tamed) being fond of and not an expert on the subject.

During the discussion, high-level answers were linked, such as those related to the theory of relativity, the theoretical experiments and some field experiments by Lorentz, Henri Poincaré and Maxwell, pioneers of the theory of relativity, which he rounded off and gave an almost final shape. Einstein, also the transforms and integrals of Laplace in the theory of the probability and distribution of temporary phenomena. Great relevance then had the deterministic and probabilistic examples that approached the reality of time as something defined and immanent, or of mathematical and probabilistic existence as a flow of events with the Hilbert model.

I participated in each of them, they motivated me to study more on the subject and I learned a lot. My main and modest contribution at that time was the conception of time with simple examples of the application of the theory of relativity and quantum mechanics to phenomena in everyday life; likewise, some especially applied to biomedicine and clinical medicine. Finally, I dared to postulate my conception of time from a personal phenomenological perspective, which, accepted without much discussion, was contrasted with logical arguments and the experience of social science scientists.

As an objective and practical experience of my first phenomenological conception of time, I concluded that:

- Perceiving it and reflecting on its meaning by observing the flow of time in my immediate awareness; Comparing with the course of it on the clock, the time was objective and of punctual duration in hours, minutes and seconds; but if he reflected and meditated on it and associated ideas and more thoughts, reflection upon reflection; this is retroflexion, I felt and perceived inside me the flow of events in relative time. In this time, when compared with the clock measurement, the first one was greater (the relative one); that is, it was passing more slowly compared to the second (the target) of the clock, which was shorter or passing more quickly.

New recent triggers to address the theme of time were abandoned readings and rereadings of works deposited in my library on the evolution of life on earth; his becoming from animal to man and

superman; or even science fiction of the works of Isaac Asimov about the life and evolution of thoughts and feelings inside and outside our solar system; or the coming and going of the inhabitants of a German town traveling through time with the aim of changing their lives, and also trying to avoid the global nuclear holocaust.^{[1][2][3][4]}

Theoretical and conceptual framework

In this research, to arrive at the concept of time and its meaning, I start from the approach of Husserl's phenomenology of perception, the works in psychology of Alfred Binet and Pierre Janet at the end of the 19th century; and Merleau Ponty: Likewise, Transcendental Psychology, Freud's Classical Psychoanalysis in Dream Analysis, Bachelard's Dream Theory and Word-Reverie; in addition, evidence-based psychotherapy and some others derived from information sciences and neurosciences.

Phenomenology of perception

Edmund Husserl is the founder of the "*Critical Philosophy of Knowledge*" which is based on and develops from the works, mainly the "*Critique of Pure Reason*" by Kant and other empiricist philosophers (Hume, Locke and Berkeley, English; and the American Williams James); when during his stay in Göttingen from 1901 to 1913, he became interested in the phenomenological critique of knowledge. In 1904-1905, as he continued his philosophical work on the critique of phenomenology and the theory of knowledge, he was forced to make a more solid distinction between fantasy, recollection, and perception. In his theoretical development, Husserl introduced the problem of immanent temporality, of those minimal constitutive contents.

Husserl's intellectual efforts crystallized in a work that he carried out as a synthesis of all his research, the product of a decade of work, publishing in 1913 his "*Yearbook of philosophy and phenomenological research*." In said yearbook he summarizes phenomenology in two aspects: 1.- As a philosophical method of foundation of knowledge (pure phenomenology) and; 2.- As a philosophy of human reason, confronting the problems derived from its correlation with the world and human life and in which cognitive, ethical and aesthetic issues intervene, of practical reason or community life.^[5]

Phenomenology of perception is the philosophical approach created by Maurice, which in turn stems from Husserl's philosophy, which he presented for his doctoral thesis in 1942. Phenomenology is the

study of essences: The essence of perception and the essence of consciousness: but also, in turn, a philosophy of the essences of existence with which man and the world can only be understood according to their "facticity".^[6]

Transcendental insight meditation

Introspection literally means looking inside our minds. In phenomenological orientation, it is about the conscious observation directed inside our mind by means of recollection of the sensations, thoughts and feelings that have been had during the act of introspection and that in turn thinks about them, or reflects on them. of its content. This philosophical current began with the works in psychology of Alfred Binet and Pierre Janet at the end of the 19th century; whose general objectives were to identify the way in which the subjects could put their intelligence into play through the cognitive processes of: observation, memory and recollection and judgment of what was perceived and learned.^{[7][8]}

Later it became a method and technique with professional variants as it was applied for psychological purposes of personal and emotional recognition; or therapeutic doctors, helping patients with acute and chronic stress in order to "calm their mind" and thereby reduce or modulate their psychological and emotional disorders; those that could concomitantly affect specific diseases such as diabetes mellitus, arterial hypertension, or cardiovascular and cerebrovascular diseases.

I propose, based on the perspective of the phenomenology of perception, to consider "Introspective Meditation" as the orderly way to guide the act of observing the interior of our mind, with initial attention to feelings and perception of the immediate external world. Next, think about the perceived phenomena and the formation of concepts, thoughts and ideas, related to their respective emotional repercussions. This is the conscious reflection of perception during the excursion into our mind.^[9]

Transcendental introspective meditation is achieved when the excursion into our mind begins by paying attention to the rhythm of our breathing; ordering the rhythm of the inspiratory effort in 5 to 8 times (golden numbers and harmonic time or Fibonacci sequence, which exists in all the order found in natural phenomena, including human physiology), with similar times in expiration; in such a way that an Inspiration-Expiration cycle is completed in approximately 10 to 16 seconds.^{[9][10]}

Rhythm at which little by little the heartbeat will be synchronized and finally in approximately 5 to 15 minutes, synergy with the electrical rhythms of brain function: In the electroencephalogram, Alpha

rhythm in a waking conscious state (8-12 Hz) to Beta, transition rhythm between wakefulness and sleep and during transcendental meditation of superficial and medium level (14-60 Hz); until reaching the Theta rhythm during sleep and deep transcendental meditation (4 to 7 Hz).^[11]

Analysis and interpretation of dreams

Clinical Method and Technique, used up to the present time, both by the psychoanalysis of Sigmund Freud, and by various aspects of clinical psychology, regarding the initial orientation to categorize findings into two types of elaboration mechanisms; 1.-Condensation and, 2.- Displacement:

1. In the Condensation, an element of the dream is overestimated, so several symbols are condensed into one (for example, a look of authority can represent a father, a teacher or a policeman).
2. While Displacement, an affective quality "*hate or love*" is not directly associated with the element that produced it "*person, setting, situation, context*", but with another with which it has a symbolic relationship, such as an unconscious symbolic resource to hide or conceal that the content is known and comes to light, thus mocking moral censorship.^{[12][13]}

The specific analysis and interpretation of dreams cannot be generalized since it is specific to each psychotherapist-patient relationship, and particular to the individual's life history and culture from the anthropological perspective of the interview. In the explicit content of the dream, many events follow a timeline in terms of a before and after, but sometimes the whole is perceived simultaneously; that is to say, when there is temporality due to the flow of events, time is relative in terms of its duration, while when they occur simultaneously, time is conceived immanently.

Regarding the terms "*Sleep; Dream and Dreaming*"; I make the following operational conceptions. My foundation in this part comes from Gastón Bachelard. *Reveries about Dreaming*. The word dreamer. I conceive the term "Sleep" as: Being in the state of rest that consists of the inaction or suspension of the senses and of all voluntary movement (*Dictionary of the Spanish Language 2019*).^{[14][15]}

I conceive "*Dream*" as the oneiric act that happens when one falls asleep and that consists of real or masked experiences that are remembered and reflected during this period of bodily and mental rest that is "Sleep"; therefore, for purposes of dream analysis in this work, "*Dreaming*" is the act of "*Dreaming Dreaming*"; that is, dreaming during sleep; which could be a temporary extension of the dream story or the memory of it in terms, concepts and words with direct or masked meaning.

The latter is what I identified and in turn adopted from Bachelard's work; dreaming of words with an indistinct meaning of gender, almost always in the mother tongue, although on occasions regarding gender, it gives a feminine or masculine meaning depending on the strength of the intonation or rhythm in the statement; more poetic and affectionate in the feminine and more masculine when the words are authoritative, direct and with an expression of force. Finally, in this part, Bachelard declares, and with which I agree, that the act of sleeping and dreaming does not extinguish, empty or stop consciousness; it is always busy rationalizing and devising images and concepts of dreams and reverie. On the other hand, in the dream and reverie of words, time is conceived in a relative or immanent way, according to the impression of reasoning and consciousness during the dream.^[14]

Bachelard's works have borne fruit in similar ones on the analysis and interpretation of dreams; or have fed the literary vein of many writers of stories, novels and poems related to sleep and its contents such as: sleep, reverie, imagination and creativity, and time during the conscious act of the immanent mind when dreaming.^[16]

Now with a little more experience and knowledge on the subject, once again I dare to expose a mental experiment with theoretical and conceptual arguments where the method and the main tool are an introspective excursion inside my mind, my feelings and my consciousness. A dialogic discussion and communication within myself; in the comparative and modest way of what happens in the work of James Joyce, *Ulysses*: for example, an interior monologue that runs through my consciousness; or how Marcel Proust travels in his reflections to defined or timeless times in his work "*In Search of Lost Time*", an exploration that begins "*by way of Swann*" and ends in "*Time Recovered*", going through "*In the Shadow of Girls in Flower*", "*The World of Guermantes*" and "*Sodom and Gomorrah*." ^{[17][18]}

I literally rescue part of the last paragraph of the last volume of the Proust series, as a faithful sample and conclusion (for me as a reader) of his great work:

- if I were to continue long enough to carry out my work, the first thing I would do would be to describe in it the men occupying an extremely large place (although to do so they would have to appear monstrous), compared to the very The restricted space assigned to them, a place, on the contrary, prolonged without limit in Time, since, like giants submerged in the years, they simultaneously adjoin such distant epochs, between which so many days came to be located.

Goals

1. Carry out a mental experiment through an interior monologue exploring the meaning of time by introspection.
2. Using a two-way and horizontal dialogic communication model, identify the conscious perception of terms and concepts related to time.
3. Contrast the evidence perceived during the conscious exploration of the passage of time, in the immediate context of the bedroom and my bed (bed) at night before going to sleep and after meditating in an introspective way with a focus on the rhythm of my breathing (*Inhale-Exhale*).
4. Compare the perception of relative time during the act of sleeping and dreams; with the objective conscious perception and the relative unconscious; through the analysis of the dreamed content, in order to identify its elements and compare with the previous objectives of the experiment (vide supra).

Justification

Explore a new field and start an original line of research related to personal introspection through meditation and apply conscious perception to guide its effects on the health-disease balance, of various conditions: chronic, degenerative and neoplastic. Likewise, to reinitiate a forgotten or overlooked line of research, which is the analysis and interpretation of dreams following the "Freudian current" and Bachelard's.

Methods

- A. Meditation and reflection through mental introspection, in an interior monologue regarding the meaning of time.
- B. Conscious perception and reflection of the meaning of time and contrasting the meaning of time, through introspective meditation.
- C. Remember and narrate while sleeping, the conception and meaning of time during dreaming; and recall upon awakening, compared with the actual time elapsed during the act of sleeping.
- D. Analysis of the dream content (Self-analysis) following the method and technique of Sigmund Freud: Regarding the initial orientation of this classical psychoanalytic current, it begins by categorizing findings into two types of elaboration mechanisms: 1.- Condensation and, 2.-

Displacement. Finally, after said analysis, an Interpretation of the content is carried out, which cannot be generalized, but is specific to each person analyzed and their life history from an anthropological perspective.

E. Interpretation of the dream content through the meaning of images, terms and concepts relating implicit or unconscious contents with the explicit or conscious ones of the daily affective life while awake.

F. Analysis of dream content (*Self-analysis*) in relation to dreams; that is, dreams of the dream, especially dreams with great conceptual or word content, following Gastón Bachelard's proposal. Following the same proposal of the self-analysis of dreams, Interpretation of the dream content through the meaning that terms and concepts relating implicit or unconscious contents with the explicit or conscious ones of the daily affective life in wakefulness.

Instruments

- a. Citizen brand wristwatch that marks the hours, minutes and seconds with specific dials and hands for this purpose; automatic and solar powered.
- b. Electronic and digital nightstand clock (bureau), powered by electricity.

Research subject and researcher

A conscious 73-year-old man with a history of good sleep and who has never taken addiction drugs or hypnotics or tranquilizers. Carrier of several controlled and stable conditions through specific treatments: DM2; Single-renal CRF secondary to right nephrectomy for renal cancer E1-T1-M0 in May 2016; in recovery and remission of terminal renal and lung cancer due to the effect of immunotherapy (cannabinoids) and 12-hour evening-night oxygen therapy with O₂ at a flow of 3 liters per minute, via nasal prongs.

Clinical physician with a master's degree in medical sciences and a specialist in internal medicine; clinical practice of 50 years; Experience as a professional and career researcher in the fields of biomedicine, clinical medicine, health systems, and educational sciences. Public servant by career and currently Retired from the Mexican Social Security Institute (IMSS), UNAM School of Medicine and General Health Council (CSG). He currently works in academic, educational, and research fields in his areas of expertise as a free agent. Likewise, referee in review, analysis and evaluation of works

submitted to editorial evaluation for publication purposes, in national and international medical journals.

Self-taught in stress self-management, self-analysis, and evidence-based acute and emergency psychotherapy. Experience in its development and application for 30 years, within the care and pharmacological and non-pharmacological treatment of adult and elderly patients; with chronic, degenerative and neoplastic conditions, which, in addition to said health disorders, presented emotional instability of the type: generalized chronic stress syndrome, post-traumatic stress, anguish and depression.

Research design

Investigation action; Investigator-Investigated.

Quasi-experimental, open longitudinal and comparative between before and after intervention and comparison of methods. Conscious Reflection vs. Conscious Introspective Meditation vs. Dream.

Sample size and analysis of results

Universe = Sample; $N = 1$

Non-parametric statistics of nominal dichotomous type, comparing objective vs. relative time, as appropriate to the method used.^{[19][20][21][22]}

Nominal declarative non-comparative non-parametric statistics with sentences related to experience and relative vs. objective perception of time.^{[19][20][21][22]}

Kappa Concordance Test and Signs Test; with $\alpha 0.05$; $p < 0.05$

Hypothesis

- i. The conscious perception of time in a phenomenological perspective and interior monologue generates phrases and sentences that express thoughts and reflections with logical and conceptual arguments in the form of maxims and sentences.
- ii. Conscious perception of time through insight meditation generates related concepts in objective terms of change in before, now, and after; past, present and future. Modification of the schedule and passage of time according to digital and wristwatches.

- iii. The perception of time during the act of sleeping and dreaming, in comparison with introspective meditation, generates a conception of subjective or relative duration.

Results

I. I feel and perceive time by thinking and reflecting on it; I generate concepts and quantify the time elapsed from the beginning, until I elaborate terms, sentences and sentences. I compare the time elapsed between my perceptions and the result by looking at my wristwatch.

The time of perception and thoughts is variable, from 5 to 10 minutes and 5 minutes when describing it in a text or sentence.

- i. Time for me is relative when I think about it; and objective when I perceive it and see it happen quantified on the clock.
- ii. I consciously live the perception of time
- iii. Within me there is time
- iv. Time is within me, I am time
- v. I and time are one

II. 11:20 p.m. preparations for meditation

11:30 p.m. I start introspective meditation in relation to time, I focus my attention on breathing synchronously with the operation of my oxygen concentrator; I breathe in and out in six counts in accordance with the sound of my twelve-count concentrator during that period.

12:00 p.m. I finish my meditation. The elapsed time was 30 minutes and my perception was greater, approximately 1 hour.

Or: 01 a.m. I sleep after my meditation and I dream with a very real content related to the experiment of measuring time. I wake up at 2.00 a.m. Objective duration 1h and relative perception of approximately 4h.

Dream content

I carry out an experiment that consists of measuring and qualifying in an artificial pond with greenish water with little current and a bad smell, the characteristics of gray fish such as carp and trout: Shape, size, color and mobility. I finish the experiment and I feel that I am going to fall; I see three rocks with an almost flat upper surface and I jump towards them to avoid falling and getting wet. When I jump I see a cornice and a column that hangs, I grab hold of the column and discover that it is a statue of a

woman in a white dress; I hug her waist and my mouth feels her belly. At the moment I feel that she is falling apart and I see a path towards the horizon where many people come who laugh and question my actions and movements. I feel sorry and ashamed, and try to let go. I am falling and I perceive the taste of "plaster" in my mouth. Before I fall awake.

02.01 a.m. Objective duration of sleep 2 h. Subjective time 4 h.

Interpretation

In the dream, I project my reality of being a biomedical researcher and clinical doctor with the ability to perceive the characteristics of objects and research subjects such as the vital and organoleptic signs perceived by my senses and interpreted in terms of health and disease (cloudy water, bad smell, fish in their environment and people in theirs).

Likewise, I express in the dream my physical, mental, and emotional state because I was in poor health at the time of the experiment because I was diagnosed with right kidney cancer with metastasis in the left lung (or second primary of bronchial cancer) and metastasis systemic, that is, in the terminal stage of cancer without the possibility of receiving any antineoplastic regimen. Hence the research environment with cloudy and smelly water. My surprising and marvelous recovery is the reason for another communication already published on the matter.

I also develop in the dream my libido and sexual need expressed in the oral-genital approach with the female statue that I try to cling to and yet I do not achieve it with great pain for myself, because I have witnesses of this need and very intimate feeling.

II. I have two more periods of sleep of 2 hours each: 02.01 a.m. to 04.00 a.m. and from 04.15 to 06.14. Both were as satisfying as if I had slept for 8 hours.

Dream content

I have the feeling that the dreams were a continuation of the initial experiment in the pond and the fish; but I do not remember clear details of them. I only remember concepts related to measurement, type of fish, comparison of measurements, comparison of categories in terms of larger or smaller size, or more or less greyish color. Also tables and matrices with comparative number of hours between sleep periods with absolute vs. relative duration in nominal categorical and nominal dichotomous variables.

Interpretation

Similar to that of the first dream in terms of the experiment with the fish, since it is a complementary continuation of that one.

As for dreaming about mathematical matrices, it means that I have a mathematical thought and I can rely on it, particularly in biostatistics, to analyze and interpret the results of experiments and hypothesis tests in terms of normality or abnormality (statistical significance and clinical significance).

Statistic analysis

- Kappa value = 0; in comparison of dichotomous variables "Relative time vs Target time; therefore, $p > 0.05$; statistical difference not significant.
- Kappa value = 0; in comparison qualitative duration of time in transcendental meditation vs. sleep and reverie.
- Kappa value = 0.2 in comparison of dichotomous variables in duration of time; longer duration vs. shorter duration between transcendental meditation vs. objective measurement of time.
- Test of the Signs $p < 0.05$ in comparison between objective transcendental meditation vs. subjective measurement of time.

Conclusions

- Time is relative when I perceive it and think conceptually in my internal monologue.
- Time is objective when I perceive it, think conceptually and see it go by on the clock.
- Time exists when my consciousness quantifies it and it ceases to exist if I don't see it go by on a clock.
- Transcendental meditation through introspection slows down time; judging by the relative sensation in its duration and the objective duration quantified on the digital clock.
- Sleep and reverie turn relative time into both perception within dreams and the sensation of duration upon awakening; and time becomes slow when compared to the objective time of the digital clock.

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