

## **Subject and Time Movement in the Virtual Reality**

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“Time travels in divers paces with divers persons.”

William Shakespeare, *As You Like It*.

### **ABSTRACT**

We aim to relate the time dimension to the functioning of ideology and language, which interferes with the constitution of the subject. The time dimension, as an anticipatory mechanism, dictates to the subject an artificial creation of reality. We understand the subject as the “basis” that guarantees the non-crystallization of this virtual reality due to the fact that subjectivity plays a dual role: that of disclosing subjection and that of disclosing its subversion, thus breaking the circle of idealism of the virtual reality. The meaning process in its constitution depends on the *movement related to time* and on the *point of origin of this movement* which will interfere with how emotion will be received and interpreted by the subject. This functioning is related to the logical value described by Mathematics: The subjective unfolding of a temporal instance leads to the recognition of a true logical movement in the meaning construction process. The time works as a “shift” of the *orientation to the knowledge*, establishing the “right order” of the interpretation and provides an “exact part of our thinking”. We discuss the existence of something external to the logical process that suspends predictable motions and lacks the synchronicity implied by the orientation of dominant ideology. It] installs the *verification* at the origin of the constitution of meaning: The “time for comprehending” that “breaks” the framework of anticipated time in the logical reasoning and opens the logical movement to a subject’s judgment in situations.

**Key words:** Subject; Time; Virtual reality; Ideology; Logical reasoning.

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## 1.0 INTRODUCTION

Emotion is a broad concept which is mixed with life itself; it is not restricted to thoughts. It is intertwined with temperament, personality and culture and influences the subject's ability to discern, consciously or unconsciously, symbols and meanings to arrive at a perception (Ostrower, 2008).

Faced with the need to understand emotion, we have placed the focus of this article on emotion as a *reality experienced by the subject*. In this way, our investigation falls on the *subject*, conceived as a place where “desires, interpretations, sensations, memory and meanings [are] related to the way [emotion] is received and interpreted” (Pimenta&Monte-Serrat, 2015, p. 984-985). It is in the subject that meanings are constituted, either by virtue of an ideology or by force of an “event” (as an underground meaning, contradictory to the dominant ideology) (Pêcheux, 2002, p. 9). The subject is the “basis” that guarantees the non-crystallization of emotion, just as ideology wants to make us believe. It is the subject who gives the displacement of emotion or meaning, supposedly crystallized by the game of power (ideology); it is the subject who opens the possibility for something new to happen.

Henri Laborit (1968) states that subjects are committed to two essential processes: that of memorization and that of association of elements. The richer our information storage, the greater our association of elements in the construction of meaning. These processes of meaning constitution depend on a *movement* that cannot be ignored: *the movement related to time*. Current technology, for example, interferes in the constitution of meaning and, consequently, of the subject's reality. When technology operates in virtual reality, there is an *acceleration of time* which reduces the subject's ability to reflect (Feldman, 2002, p. 12). Another example of time-related subject movement is asserted by Levine when he states that Frederick Taylor's efficiency engineering establishes that optimum standards for the times of each worker's every movement were clocked in order to not:

“‘waste’ motions – such as talking, yawning, scratching one's head or any other “extra” movements - from the movements that lead directly to the production at hand. The precision of these measurements was eventually perfected to the level of ten-thousandths of a minute. Taylor believed that his method of scientific engineering, when applied with complete objectivity, would produce the perfectly streamlined “standard time” for every job.” (Levine, 2006, p. 71)

Besides the movement related to time, another issue to be observed in the process of meaning constitution is the *point of origin of this movement*: the point which is *valued by the dominant ideology*. Levine (2006, p. 71) emphasizes that men and women are objectified and redefined in clockwork and mechanistic language to suit prerequisites and schedules which dictate efficiency. This functioning imposes *standardization and a new conception of time*; creates new priorities for the social order and goes beyond the public pursuits, entering private lives.

This article discusses the junction of these two factors - *time* and *origin of the movement* (ideology) which will interfere with how the emotion will be received and interpreted by the subject. The junction of these elements interferes in the *constitution of the subject*, keeping in mind that enunciation is a place where the subject is constituted and that a subject is conceived as effects of meaning between interlocutors within a socio-historical context (the subject is not something given beforehand, but he/she constitutes himself/herself in enunciation) (Elia, 2004). Consequently, we can observe a subject “reproduced” by virtual reality. He/she finds himself/herself in a situation where something within the “self” is excluded for something else to be “grafted” in this place. The consequence is that he/she begins to reproduce (as if mechanically) virtual reality. We can say that what we call real time undergoes an alteration giving place to virtual time. According to Feldman (2002, p. 14), this process introduces a movement directly into the subject's perception, that is, he/she “perceives himself/herself” as something virtual, distorting his/her own reality, and

diminishing his/her capacity for reflection and understanding: thus becoming a passive subject with predictable emotions.

## **2.0 DISUSSION AND ANALYSIS**

### **2.1 The subject under effects of ideology and time - the role of logical reasoning**

The role of ideology in the constitution of the subject cannot be ignored, since it interferes at the conscious and unconscious level of the subjects (Monte-Serrat, 2013). The subject under effects of ideology is constituted under the logical reasoning process, which overlaps the subject's interpretative actions and excludes the subject's interpretations filled with subjectivity. This kind of subject's enunciation becomes measurable and predictable (Haroche, 1992); the subject is constituted as determined by dominant ideology (Monte-Serrat & Tfouni, 2013a).

How does this ideological interference occur? Ideology interpellates (Althusser, 1999) the subject by promoting an anticipation (time) of meaning, under the domain of the logical reasoning which structures language. There is a logical "power" in language that will establish the dominant meaning and the dominated meaning. The subject conceives the meanings, or rather, it is unconsciously constituted (he/she is interpellated by ideology, according to Althusser) (1999); his/her motivations are influenced by ideology. The logical "power" of language (Whorf [1942] 2017) causes alienation of the subject, who becomes oppressed without realizing that there is a process which conditions him/her.

### **2.2 Subject and time in the logical movement**

The relation between the subject, time and language lies on understanding the functioning of the logical value as described in the Science of Mathematics. The subjective unfolding of a temporal instance leads us to recognize a true logical movement in the meaning construction process.

The background of this discussion is in the context of the Century of Lights, whose discursive production imposes "the" way to objective knowledge and provides us with the "autonomy" emerged (Kenshur, 1996, p. 526). The discursive production of the Century of Lights brings in it the imposition of the use of logical reasoning as "general patterns of reasoning, without reference to a particular meaning or context" (Ncert, 2017, p.247) to examine ways or processes of the subject's constitution. In other words, the relation between the subject's constitution and the functioning of logical reasoning has the time element as a "shift" of the *orientation to the knowledge*. How can time *guide the knowledge* and *the constitution* of meanings? Through language structure, as we shall see after understanding the functioning of logical reasoning in Mathematics.

### **2.3 Logical reasoning in Mathematics**

The first concept of Mathematics that we need to understand is the concept of "proposition": "A proposition is a sentence which is either true or false (but not both)" (Eccles, 2007, p. 3). Some authors establish the difference between general statements and propositions: general statements "become propositions once a numerical *value* is assigned to *n*" (Sundstrom, 2017, p. 4).

In order to establish that a statement is true, we often write a mathematical proof, and in order to "establish that a statement is false, we often find a so-called counterexample" (Sundstrom, 2017, p. 3).

Math and Law, for example, in order to avoid ambiguities, have many common features: they both use and need very precise and sometimes intricate language (and applications or cases to illustrate the rules), and they both need proofs to make a decision or a ruling, or decide the veracity or falsehood of a statement or event. So for both areas, there is a need to focus on "what happens before we start a proof"; things like making "a conjecture beforehand as to whether the statement is true or false" and "this is often done through exploration" (Sundstrom, 2017, p. 3).

In order to know whether a given proposition is true or false, we need to observe how statements are using various logical connectives. Connectives combine simple statements to form

new statements and the basic ones are: “*or*”, “*and*”, “*not*”. The meaning of mathematical statements avoid ambiguities and must be precise by using “*or*”.

Mathematics is concerned with establishing the truth of statements and “this is achieved by giving a proof of the statement. The key idea in most proofs is that of *implication*” (Eccles, 2007, p. 10). Eccles (2007, p. 10) defines proofs as

“a sequence of statements starting from statements we know to be true and finishing with the statement to be proved. Each statement is true because the earlier statements are true. The justification for such steps usually makes use of the idea of ‘implication’; an implication is the assertion that if one particular statement is true then another particular statement is true.”

“One of the most frequently used types of statements in mathematics is the so-called conditional statement” (Sundstrom, 2017, p. 5).

“Given statements P and Q, a statement of the form “If P, then Q” is called a conditional statement. It seems reasonable that the truth value (true or false) of the conditional statement “If P, then Q” depends on the truth values of P and Q. The statement “If P, then Q” means that Q must be true whenever P is true. The statement P is called the hypothesis of the conditional statement, and the statement Q is called the conclusion of the conditional statement [...]”

The conditional statement “if p, then q” ( $p \rightarrow q$ ) can be expressed in different ways. Some of the common expressions are: a) “if p, then q”; b) “q if p”; c) “p only if q”; d) “p is sufficient for q”; e) “q is necessary for p” (NCERT, 2017, p. 252).

The results of these conditional propositions form explicit or implicit hypotheses. The process of demonstrating an outcome is based on hypotheses and, according to elementary reasoning, intermediate conclusions are obtained until the desired conclusion is reached: The demonstration, which constitutes a list of evidences of the veracity of enunciation – if the hypothesis is valid, then so is the thesis (Bianconi, 2017). Sometimes, making a demonstration suggests moving backwards (from the thesis to the hypothesis), looking at the hypothesis as an intermediate conclusion, and then writing in the right order of mathematical language. This “right order” of mathematical language is a kind of necessary certainty with regard to mathematical propositions which *anticipates* the concept of a systematic mathematical interpretation.

Establishing the truth of mathematical statements depends on starting from other mathematical statements known to be true (Eccles, 2007, p. 16): “The deductive method [...] proofs began from certain ‘axioms’ or ‘postulates’ which are viewed as self-evident truths [...] and which most people would consider to be obvious facts”.

The axiom engenders an increasing order of instances within the logical process so as to be integrated in a conclusion. The axiom assumes the function of basis or “floor” on which the mathematical deductions were constructed. “In constructing the logical deductions from this axiom, the conclusion will only be true if we take into account the constraints imposed by the axiom”, as stated by Cabella in a personal interview.

When we take probability into account, a possibility in time is called an event, and as long as an event has non-zero probability, then it can happen, even if remotely. If the probability is about flipping a coin, for example: yes or no (Heads or Tails), it is a matter of “when”. In other words, over time one of the events will happen, and a head, for instance, could show at the first time the coin is tossed, or it could show at the tenth time. It may also depend on how straight or crooked is coin flip. So, a Head or a Tail is certain to show over time.

Kenshur (1996, p. 532-533) states that since the seventeenth century, there has been a tendency to take “probable knowledge” as “knowledge indeed” to get on with scientific work,

causing a distancing from epistemological doubts. This position has shifted the uncertainty of the “fact” to the uncertainty of “when”.

The way Mathematics serves as a “model for rational inquiry” (Encyclopaedia Britannica, 2017) in the sciences has consequences “to the reliability and extensibility of rational thought itself”. So, mathematical education “provides a rich array of mental patterns and the habit of looking for instances where they are applicable”. It also provides an “exact part of our thinking” (Levitt, 1996, p. 47-48), establishing “the truth of the statement” and “the steps of the logical argument by implications” (Eccles, 2007, p. 21).

#### 2.4 Logical reasoning in Language

According to Whorf ([1942]2017), “the linguistic order embraces all symbolism, all symbolic processes, all processes of reference and logic”, turning the mind into the “great slayer of reality”; he states that “the patterns of sentence structure that guide words are more important than the words themselves”.

Understanding logical reasoning in language is associated with grammar. According to Derrida (1967, p. 71), grammar has the task of determining what must be true for the “representamen” used by science to make sense of it. Logical reasoning has the role of a formal science that will establish the truth conditions of representations, that is, with respect to scientific intelligence, logic has the role of determining the laws according to which a sign will give rise to another sign or determine the way one thought will determine another thought. The author (Derrida, 1968, 74) replaces semiology with grammatology, stating that the latter does not exist in fact, but has a right to existence, because its place is determined in advance. *The logical movement: standardization and anticipation:*

“The time recorded induces punctuality by impressing the value of time on each individual [...] There is nothing so fatal to the discipline of the plant, nor so disastrous to its smooth and profitable working as to have a body of men irregular in appearance, who come late and go out at odd times.” The new time recorders promised to help “weed out these undesirables.” (The International Time Recording Company Catalog, 1914, In Levine, 1997, p. 68-69).

“Time dimension” is related to the functioning of ideology and language as *anticipatory mechanisms*. We observe time as something that interferes with the constitution of the subject and not as a means of keeping track of the hours to synchronize human activities. Our interest lies in *what remains as desirable of the discipline* that time imposes on individuals, better saying, the existence of a society which allows to be dictated by an artificial creation. Jeremy Rifkin (1987, p. 1) described a human being as a “time binding” individual whose “perceptions of oneself and of the world are mediated by the way we imagine, explain, use, and implement time”. This phenomenon can be understood as an ideological effect “to gain social control by imposing a new rhythm of collective life” (Zerubavel, 1977, p. 870). Rifkin (1987, p. 5) states that artificial time frames human consciousness with temporal deprivation, leading men to accept politics as “a spatial science [...] about to be considered as a temporal art”.

The concept of ideology that we use is equivalent to an illusion, false consciousness in the paradox of being enslavement to itself (Marx & Engels, 2005). Pêcheux (1988) states that something fundamental of ideology refers to the *evidence placed beforehand* and that has the central and organizing role of *constituting meaning* and *constituting the subject*. The ideological effect is to deprive individuals from the capacity to reflect on their conditions of existence, possibilities of choice and resistance. The individual interpellated by ideology (according to Althusser, 1999, interpellation is the process which calls out people and offer them a particular identity) stresses the notions of feelings, sensitivities and subjective goods, for fear of not knowing

how to work on the complexity of objects that originate in what is virtual and intangible (Haroche, 2003).

### 3.0 CONCLUSION

Ideology gives rise to a paradox that inhabits the subject who believes in the fact that “the real value of work lies in the strength of self-denial” (Abe, [1991]2017). There is something tragic in the structure of the subject that resembles a beat between real reality and virtual reality (Monte-Serrat & Tfouni, 2017). The interpellation mechanism makes the subject believe, at once, that he is autonomous and free and, at the same time, that his freedom is entangled in economic or social determinations. Pêcheux (1988, p. 255) brings a warning about the possibility of resistance and revolt within the process of subjection, since ideology exists “under the modality of division; it only takes place in contradiction”. The ideological dislocation and the unpredictable interrupt the perpetuation of the repetitions of the ideological ritual (Monte-Serrat & Tfouni, 2017). There is something external to the logical process (the latter being closely linked to the process of ideological interpellation) that suspends predictable motions and causes the lack of the synchronicity which is implied by dominant ideology. This new process installs the *verification* at the origin of the constitution of meaning, *substituting the certainty* of the anticipated meaning regulated by the ideological process of subject interpellation.

Subjectivity is a place that plays a dual role: that of disclosing subjection and that of disclosing its subversion, thus, breaking the vicious circle of idealism and interrupting the tragic fate of the subject that is captured by ideological interpellation. This can be observed in the acts of enunciation related to idealism that is beyond the subjects, which dictates the meaning of statements towards a certain direction, bringing a “fetishism by attributing the extraordinary virtue of ‘correspondence’” (Monte-Serrat & Tfouni, 2013, p. 3) between what one says and what is determined by dominant ideology: the subject finds himself/herself in an illusion of autonomy in his/her own enunciation/interpretation.

There is a paradox in this functioning which reveals itself as a power of the pulsation between meaning imposed by ideology (virtual reality) and meaning originating in the subject (real reality). In other words ideology objectifies meaning and, on the other, such objectified meaning can vacillate with the inclusion of a *time for comprehending*, which interrupts the process of ideological interpellation. Time for comprehending is not supported on a meaning given previously (as it happens in logical reasoning). Time for comprehending is something that “breaks” the domain of paradox functioning; it is something of another order, something that is outside the framework of anticipated time in logical reasoning. The “time comprehending” causes a suspension in the “time causality” (anticipation) of the meaning and gives space to a “temporal modulation” which opens the logical movement to a subject’s judgment.

It so happens that a subjective reflection that grows in the very logical movement exists. If the ideological process acts in *speech*, we can see a subjective reflection in *silence* which does not follow the logical structure of language; if there is a scheduled time for events, we can observe that time is “measured also by heartbeats, the rhythms of drowsiness and sleep, the recurrence of hunger, the menstrual cycles of women, the duration of loneliness” (Lightman, [1992] 2004, *apud* Levine, 2006, p. 81). Lightman states that:

“Time is a stretch of nerve fibers: seemingly continuous from a distance but disjointed close up, with microscopic gaps between fibers. Nervous action flows through one segment of time, abruptly stops, pauses, leaps through a vacuum, and resumes in the neighboring segment.” (Lightman, [1992]2004, *apud* Levine, 2006, p. 48).

The subjective reflection can also be in the “waiting” which links the present to the future. It is what St. Augustine called “the present of the future.” (Levine, 2006, p. 122). Waiting is a special

instance of using time ... it is “undistilled silent language speaking when words will not suffice” (Levine, 2006, p. 124). “The waiting period is not just a delay to be endured in order to reach the right moment. It is respected as the very creator of that moment” (Levine p.198). According to Levine, waiting is a “new point of view... lasting insights, those that continue to make a difference in how I live my life (Levine, 2006, p. 221) without an abundant helping of “shoulds” and “musts.”

...“As Miles Davis said, ‘Time isn’t the main thing. It’s the only thing.’ How we construct and use our time, in the end, defines the texture and quality of our existence.” (Pinker, 1994, p. 209)

It is essential to understand that the subject and time movement occur in the pulsation between “time causality” (anticipation meaning given by logical reasoning) and “time of comprehending”, between virtual reality and real reality, and it is paramount to understand that the subject can:

“hold fast the time! Guard it, watch over it, every hour, every minute! Unregarded it slips away, like a lizard, smooth, slippery, faithless . . . Hold every moment sacred. Give each clarity and meaning, each the weight of thine awareness, each its true and due fulfillment.” (Mann, 1959, *apud* Levine, 2006, p. 207)

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