

Miscellaneous

The Oppressor School Time

Nuno Vieira

*CeiEF - Centre for Studies and Intervention in Education and Training
University Lusófona of Humanities and Technology – Lisabon, Portugal
nuno.mcvieira@gmail.com*

Abstract: Time conceptions have had an evolution along the time, defining itself as one key element for both social and scientific activities. Nowadays time studies do not belong to a specific scientific subject, it has a multi-referential status and its study must be based on multidisciplinary perspectives. Even our circadian times are ruled by external entities such as work, and we learn to walk by the (temporal) rhythms at school. Time rulers, like clocks, bells, rings, defines our lives and the way we live them, undertaken by a global synchronism. This synchronic activity oppresses (Freire) our lives because it overrules our inner time and dictates the way we live in the moment that we start going to school.

Keywords: time and temporalities; school time; oppression

You May Delay, But Time Will Not

Benjamin Franklin

1. Introduction

The concept of time goes along with the biological and social development of mankind, influencing behaviors, defining rhythms of life and attitudes, both individually and socially. Like everything else that surrounds man, time is a part of the environment. Since old times, in several approaches, time has been the subject of philosophical analysis and technologic development, but it was only with Galileo's pendulum clocks, that time became a key pillar for the sciences, occupying a central place in Newtonian and Einsteinian theories. Galileo's genius enabled him to build mechanisms to measure time¹ with sufficient accuracy and

¹ In the 17th century there were different mechanisms of telling time, as clepsydras and hourglasses, but none had the necessary accuracy and reproducibility of a measurement instrument for scientific studies. Note that Galileo concluded that the period of oscillation of the pendulum did not depend on

precision to carry out the experiments founders of mechanics (Glennie & Thrift, 2009). Although without a complete characterization, Galileo provided a geometric relationship between the notions of space and time, notwithstanding without a complete characterization, defining uniform movements as the one that travels equal spaces in equal times. (Klein, 2007, p. 47)

Once exerted control over the scientific and technological knowledge for counting the time, two centuries elapsed before accomplishing the clock synchronism, first locally and globally in a few years later. As the geopolitical world is increasingly interdependent, the social conceptions of time have had particularly sensitive developments, so that a linear thinking does not seem to be an effective way of understanding the multiple relations of time, place and space, reflected in physical theories. These relationships expose a mixed time and space conception, highlighting the non-linearity of time travel. The complex relationships that time establishes with what is around it are unraveling themselves, implying an increase of the intensities and the densities of the space-time correlations, reconfiguring them (Bergmann, 1992, p. 152). Thus, the search for a definition of time has lost the status of study subject of one particular science which can only look at it in a particular way, to become a multi-referential concept in varied and, above all, diversified areas of knowledge.

A universal multi-referential theory of time does not intent to eliminate the uniqueness of each area of knowledge that studies it, on the contrary, “an understanding of time must satisfy a wide variety of specifications because time enters our thought and experience along all the ways in which we encounter ourselves and the world. It follows that the study of time must be based on multidisciplinary perspectives” (Julius Thomas Fraser, 1981, pp. 25-26). The time conception is oriented towards an isolation combat, tracing paths that provide the interaction between various knowledge areas, and thereby elucidate the diverse understandings of time. These pathways not only permit a more comprehensive understanding of time, but may also reveal new space-time relations. For example technological advances allowed time to have an important role in planetary orientation and mobility. “A universal theory of time should not be required to eliminate the distinctness of the many fields that must contribute to it, but seek instead various ways in which to eliminate their isolation. It should provide for

the sprung mass, but the length of the arm, that Huygens Cristian mathematically confirmed the veracity of the statement, demonstrating that the motion of the pendulum was cycloidal.

routes along which different understandings of time may interact and elucidate each other.” (Julius Thomas Fraser, 1981, p. 26)

Thus, time as an entity is more and more complex, facing the emergence of new (cor)relations between social sciences and humanities and natural sciences and engineering, becoming “a problem word and not a solution word.” (Morin, 2003, p. 8)

We no longer observe the circadian rhythms in our daily routines, we do not eat or rest when the body asks because we are conditioned by the timings imposed by the social activities, time of getting up, time for lunch or dinner are always adjusted to global rules. We start working at a time signal; we stop with the same kind of signal. We eat in synchrony, socialize in synchrony, we ever have synchronized the leisure time and the personal time. The activities of an individual are, in varying degrees of intensity, conditioned by a number of cyclical regulators, like stars, the pendulums, the electrical impulse of crystals, the radioactive decay of a chemical element, which is by any super-human periodicity phenomena. We subdue ourselves to clocks.

Current societies are regulated by schedules, which are based on a network of clocks regulated by a clock-master. Personal watches are also synchronized with these clock-masters, so that the world can walk at the same pace. The workers watches are synchronized with the companies, also already synchronized with other partners, tuned by banks which in their turn are adjusted to the clocks on stock exchange, on a global level.

2. School Timing Schedule

From early on that the religious doctrine imposed synchronic rules. The western temples have created mechanisms to regulate and impose timing rhythms, where the “rule imposed its iron discipline, cadence the monastic life in a way that left little space for fantasy” (Klein, 2007, p. 16). In the 17th century a Sabian’s Pope papal edict required that bells rang seven times every twenty-four hours, to mark the seven canonical hours (Klein, 2007, p. 16)¹. This rule imposed in monasteries spread rapidly through the cities that have adopted this as the first mechanisms of

¹ The seven canonical hours are: matins, moment of pray at night; lauds, one hour before sunrise; prime, the first hour of the day; tierce, mid-morning; sext, at noon; none, to mid-afternoon; vespers, marking the setting of the sun and finally the complite, one hour before bedtime.

timekeeping with the power to regulate social behavior, or rather, attribute to a mechanism the power of measure durations between two events. When the bell was heard, it was time to pray, regardless what they were doing at that moment. In the 14th century clock bells “rang the hours in the cities, synchronizing human and social activities, initiating a previously unknown regularity in the lives of artisans and merchants” (Klein, 2007, p. 16). During medieval times, certain periods of the day were marked by bell rings, long before the invention of mechanical clocks, which were intended both to the general population and for specific groups in society. In large cities different signals – the number of rings, the duration, the intensity, the location of the bell – were intended for different purposes or different groups, ended up resulting “in what was been aptly described as acoustic chaos” (Glennie & Thrift, 2009, p. 38).

At the University of Coimbra, Portugal, for example, in 1471 (Fernandes, 2008, p. 27) the beginning and ending of classes was signalized at the right time by the University’s clock. That is, the school organized in schedules with audible signals to mark the beginning and end of the lesson has in Portugal for at least four hundred years. In 1864, in Portugal, the clock was considered a necessary tool in the classroom, it was “appointed as first equipment needed for instruction in a School Supplies catalog” (Fernandes, 2008, p. 27), of a company dedicated to the branch.

3. The Perception of Time Speed

Man has always been regulated by the Ephemeris and made use of artifacts such as sundials, hourglasses or the clepsydras to mark the time passage. The technological evolution of artifacts held during a period that does not differ much from the history of mankind. But time synchronization among clocks at a distance, between continents, only started at the end of the 19th century and in one hundred years we have seen a remarkable evolution, from an order of effectiveness of minutes to a tiny fraction of a second, corresponding to increase precision and accuracy to a level unimaginable, even for a visionary like Jules Verne, or the genius of Einstein.

The biological rhythm of human beings does not replace the clocks and the perception of time speed, that is, the notion of the time that the actual time takes to pass is constrained by a variety of factors. This speed perception can be conditioned by personal and social factors, often related to the intensity in which

one lives the time period, or by the meaning of events that are about or take place. (Klein, 2007, p. 132) Without clocks, our appreciation of time, along with the duration, differs significantly from the one experienced when the Chronos regulates our daily lives. On the other hand, Biological cycles of living organisms, and of course humans, have some circadian rhythms of approximately twenty-four hours, even without an external time counting system, whether by photoperiodism or any other factor. Persons voluntarily exposed to photoperiods of 27h, retain much of their circadian rhythms in periods close to 24h. (Hamner, 1981, p. 290) However, it is easily found that the majority of circadian rhythms in living organisms are regulated by the light period and in a much less significant scale by thermal variations, by barometric variations, or by feeding rhythms. (Cloudsley-Thompson, 1981, p. 302) Even when mankind is subject to constant light conditions, the “organism keeps resetting its sensitive period in a futile search for the light and day periods, a process known as “autophasing”. (Cloudsley-Thompson, 1981, p. 304)

A person has more or less developed senses and as it is known, these can be trained and educated. We can compare our perception of time to the senses, considering there is a sense that measures how fast time goes. Contrary to the empiricist theories that advocated the idea that knowledge is reduced to what was experienced directly by the senses, and they do not deceive us, touch, smell, hearing deceive us, as our perception of time speed fools us. However, this time speed is measured by clocks and ruled by a synchronic sequence of activities.

4. Social Time

To Nowotny “social time refers to the experience of inter-subjective time created through social interaction, both on the behavioral and symbolic plane” (Nowotny, 1992, p. 425), but the author herself states that this definition lacks a reference to the plurality of social time. It is now more or less consensual that “different societies produce qualitatively different conceptions of space and time.” (Harvey, 1996, p. 210) Alongside the knowledge built by the sciences, both nomothetic and ideographic, is the knowledge produced by social and ethnic groups. These are the ones that determine individual and collective relationships that are established over time, profiling it as an agent under judgments and criteria of rationality. In everyday life we come across easily, consciously or unconsciously, with issues around time: what is time? How do we understand it? What do we do with it? How

do we manage it? Despite the advances of science, school continues to give us a perspective of time, absolute and universal, with the same speed everywhere in the Universe (Klein, 2007, p. 81) and, more importantly, does not leave the field open for other less deterministic considerations. It follows that, as a rule, no one raises doubts when it comes to regulate social activity from synchronized clocks, or do not question the veracity of consider that once the clocks are synchronized they keep this feature forever, regardless the conditions to which they are held on. Or, in other words, it is considered that synchronism is absolute, teaching not only the Ephemeris time as universal, but also that time is considered equally universal, in the way Newton conceived it and for whom subjective time is a measure that our senses make of an absolute time that flows uniformly, so it also should flow uniformly regardless of how we experience it. (Pöppel, 1985, p. 20)

Mankind always felt the need of measuring the Ephemeris time, to regulate social habits and rhythms, culminating in the centrality that the time currently occupies in contemporary societies. It results from the technological evolution in the counting methods, and especially in synchronization capability that has been gradually transforming the social activity, until that nowadays occupies a hidden central role in the contemporary societies.

5. The Subjugation to the Synchronism

The dependence to the clock, where even the notion of space and location are subjugated to time, has led Western societies into a process of time dependence, till the point that exercise an oppressive (Freire, 1987) action on the individual, in a Freirian perspective.

The succession of events and requests that occur in everyday life has gradually come to occupy a central place in social life, conditioning decisions, or in extreme situations requiring decisions without a prior or matured analysis, without profound consideration. A synchronization moment sets time limits, that is, it defines duration that we have to do scenarios or consider actions. This gives rise in acts sometimes precipitated, with consequences more or less restrictive, messengers of bigger or smaller regret. This happens not because the Portuguese proverb *time is good counselor* has lost its validity, we just do not have autonomous time, can only advise us till the end of a duration, restricted by synchronic activities. Or, similarly, conceptions subordinated to archetypes such as *time is money* overlap other

considerations. Linguistic expressions such as, *time flies, I don't have time, I have to make time for ...*, are expressions often said and heard with increasing tendency, which illustrate the relationship of dependency established by an individual to time. An understanding of the meaning of these expressions and others around the concept of time, when they are referred, can be seen as a process for understanding the relationship that an individual establishes with time, since one cannot "expect the world changes radically to see the language changed. The relationship language-thought-world is a dialectical, procedural, contradictory relationship." (Freire, 1997, p. 36)

The individual is subjugated to schedules without being aware of it, since birthday he has been introduced into hourly routines initially governed by biological activity, but early is introduced to the social and cultural routines. Even before becoming aware of his inclusion in a group, or even assimilate the social construction of the concept of time, an individual is submitted to a structured schedules and time routines. His learning of temporal notions that rule societies is initiated and develops itself even without understanding how he is conditioned in its existence by time, in its ability to synchronize and modulate human activity, requiring each individual to follow others action without questions. School is not exempt from this process of socialization, where the bell enforces times to get in, to change class, or get out, and teaches students the "temporal notions that governs our existence." (Correia, 2008, p. 124)

Thus, individuals are taken hostage in perceiving by assimilation the social rules that shape the temporalities, without interrogate themselves or raise issues about its meaning. The process of getting free¹ from that temporal oppression can be made through the awareness of the condition of the oppressed:

"When I first heard the word consciousness, I immediately realized the depth of the meaning, because I'm absolutely convinced that education as a practice of freedom is an act of knowledge, a critical approach to reality (...) in a spontaneous level, man by approaching to the reality simply experience the reality which is looking for. This awareness is not yet consciousness, because this is the critical development of awareness". (Scocuglia, 1999, p. 43)

¹ Freire believes that freedom is personal, individual and mental, while the liberation occurs when an oppressed class wins a struggle with the oppressing classes. For Freire, "there is no release without the men's humanization, and there is no humanizing without the rupture with the class-structuring of capitalism" (Scocuglia, 1999, p. 56)

School is structured around a calendar, tight schedules and scholar periods devoted to each course, spread over five days of the week, contribute to the domination of a system based on synchronism, which clearly encourage the productivity, but in opposition, it is dehumanizing in the way that overrides free will, canceling the ability “to take time and voice.” (Scocuglia, 1999, p. 40) Two key factors to leave the oppressed condition are the ability/capacity to say what he intends to and also have equal opportunities, but an individual only looks for his turn and make his voice being heard if he is aware of his subjugation to the lifestyle imposed by the mainstream culture. Thus, consciousness is also a key driver to humanization of time management, and a way for getting the next generations free. Naturally, habits and customs rooted in a culture are not changed in one generation, but if young people today are made aware of their submission to schedules, they will surely guide their decisions to reduce this dependence; hence the consciousness is the first step to leave the condition of oppressed.

Although for Paulo Freire change does not come from school, since this is a hegemonic structure to serve dominant structures, formed to perpetuate the class division, it can have an important role in the liberation process. In order to do this, we should make an institution that “educates people and can prevent the individuals’ massification.” (Scocuglia, 1999, p. 45) To Freire, the change will be made only from “a critical attitude of reflection that compromises the action” (Scocuglia, 1999, p. 45) so, first of all, the oppressed must be conscious of his status. We can take the example of young people attending schools. They live a succession of events, where school activities are articulated with the extra-curricular activities, sports, music... embedded in family structures with their customs and habits, such as meal times, religious activities, everything regulated by a synchronization almost absolute, where the day length is compartmentalized in durations, again delimited by synchronisms – the beginning of each action coincides with the end of the previous one. Every activity has a time synchronous to begin and to end, defining the duration. Students are placed in these daily routines, often in the first year of life, at the moment they enter in the nursery school, since families are losing the ability to welcome and accompany newcomer members. Society has evolved in a manner that requires an increasing occupation of both parents in professional tasks and till even more advanced ages.

The professional time is growing during the day, at the expense of other temporalities in which, naturally, we include the family time. This new reality leads to that among the mandates that society imposes on schools is the duty of receive the young during an increasingly longer day period, depending on the professional time spent by their tutors. This mandate has forced the political power to legislate in a way to increase the academic periods - because this was the original school function - not always in accordance with the students needs, nor with particular care to the capacities and needs of students. An example of this is the fact that the school term in some primary schools, in Portugal, is higher than the congener period in secondary schools, where students are four to ten years older. Schools organization subordinated to schedules that are subjugated to the rigidity of the clocks has a long history, as we have noted. Students do not question or challenge the rigidity of the schools timing schedules. Scocuglia stresses that “not considering man as a manufacturer of culture would lead to the *culture of silence* [author’s italics], the submission and the perpetuation of inferiority.” (Scocuglia, 1999, p. 40) That is, students placed in a school context from an early age accept school as they know it, structured in classes and organized by academic times devoted to certain contents that constitute a curriculum. Only in certain moments of their academic path they are allowed to choose the curriculum area to follow, but at no time they have a voice or turn in organizing their school schedule.

Students do not have time or voice regarding (self) management of schedule, made by the educational systems and subordinate them to a sequence of synchronization, imposed by the social action. This reality extends to the working life, in which the life pace of the so-called modern societies regulates the individual activity without becoming aware that this life pace, what is done when is done and how long it lasts is secretly imposed by a culture of silence, perpetuating the condition of the oppressed, early started in school life.

The duration of students’ activity, which easily surpasses the most diverse professional and personal activities, is permanently controlled by a timing imposed by a cultural adjustment, this cultural imperialism, according to Young (MacLaren, 1996, p. 588) is one form of oppression. In an extreme case, students are simply cancelled in their ability to manage time, and thus school sets their work and personal rhythms, or, in other words, they have no ability to decide on over their actions that constitutes an absence of power, another form of oppression for the same author.

To Paulo Freire, the pedagogy of the oppressed is one that “must be forged with him and not for him.” (1987, p. 34) School schedules are made for students and not with students. There are usually criteria for the schedules elaboration, the relevance of some subjects, such as avoiding physical activity immediately after lunch, or attempting to distribute the same subjects in non-consecutive days, the physical availability of school or, often, responding to private concerns of teachers. But the reality says that students’ needs in general are not variables in the equation. Students’ circadian rhythms, brain’s activity peaks and deficits are neglected or even ignored. Students, while oppressed, hosting the “values/needs/interests of the oppressors in his consciousness, which (...) [prevent] the actual perception of the situation of inferiority.” (Scocuglia, 1999, p. 57)

Thus, students in their culture of silence will only contribute to the liberation of the synchronism oppressive action when they become aware of their oppressed condition: “only when they discover themselves hosts of the oppressor can contribute to unfold their liberating pedagogy.” (Freire, 1987, p. 32) Naturally, students in the school hegemony live with this schedule regulation, but in the construction of their identity, they can seek mechanisms to liberate themselves from synchronism, for example, by neglecting the concept of compromise.

What synchronism does not control is the speed that social time passes. The time perception is unique, independent of any simultaneous¹ action that sets duration. In a boring situation, for example, time can be felt in a very low speed, but auto-adjusting this speed is possible to shorten the duration. In situations in which “we also get bored when we have nothing to expect, time strips from everything that normally clings to him.” (Klein, 2007, p. 45) The individual may allow cultural imperialism to rule their schedules and synchronize him with their peers. He can even retract his capacity to decide on his actions, performing not only what is requested, but when it is requested. However, the individual may liberate himself from the oppressive action of the synchronism, controlling his personal time speed.

The process of building knowledge about time, with connections between different and distinct knowledge, intends to appear as a contribution to greater awareness of time. It is no longer intended to develop a conception of time closed in the

¹ Einstein has stated that, time is nothing. It persists merely as a consequence of the events taking place in it. There is no absolute time, and no absolute simultaneity either. Whilst agreeing with this point of view, we assume here the concept of simultaneity of events when, under specific conditions, an individual can not define a before and an after.

academy, since the concepts generated within sciences are limited to their areas, even if constructed by multi-disciplinary procedures. It is aimed that an understanding of time generated from the (cons)sciences, propitiating the transgression of sciences frontiers, becoming a way of the personal and social human being, travel through areas of their knowledge, in the fullness of existence.

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