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## Theatre/Drama & Performing Arts in Education: Utopia or Necessity?

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## A Theatrical Representation of Abstract Ideas: The Case of "Time"

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Antigoni Paroussi, Vasilis Tselfes

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### Abstract

In this paper we present a project about the theatrical management and projection of a concept/idea with a number of empirical - but also rationally elaborated - representations: the concept/idea of “time”. The project was undertaken by 56 fourth-year students of the Department of Early Childhood Education of the University of Athens, who worked in groups for a full academic semester, under the guidance of two teachers. The latter oriented the students’ work in the direction of creating and presenting a theatrical study per group on the theme of time. The organisation of the educational-theatrical framework followed the logic of Dewey’s flipped curriculum, bringing the students’ personal viewpoints to the fore and transforming them.

The dramaturgical, semiotic and aesthetic analysis of the data that were derived from the successive phases of the activity highlighted the effectiveness of the educational approach with regard to practising theatrical expression. At the same time, it helped to determine that the content of the concept of time can be theatrically signified, mainly through the characteristics of space.

**Key words:** *theatrical representations, concept of time, science education*

### 1. Introduction

This research was undertaken in the context of the *Theatrical Expression and Science Education* programme, an ongoing course held over the past 15 years under the responsibility of the authors at the Department of Early Childhood Education (DECE) of the University of Athens (NKUA) (Tselfés & Paroussi, 2015). The intervention analysed in this article was made during the academic year 2011-2012 based on the reasoning that, like any concept, whether scientific or not, time acquires its meaning from the way in which we use it. The praxis, i.e. the practical application of theory, seems to insist on being the “purgatory” of conceptual confusions, while at the same time being the field that causes them. Time is at the peak of this tension and simultaneously appears to traverse the praxis field as well (the entities, the events, the changes, even the relationships), but also the system reproducing it (the human mind). This resembles a methodological problem that different thinkers, scientists, as well as ordinary people or social traditions choose to manage in their own way. For instance, we come across important philosophers and scientists who dissociate the concept of time from the material foundation of the praxis and entrust its management exclusively to the human mind. Kant, but also Leibniz, maintain that time, together with space and numbers, is part of the foundations of the human mind and that there exists nothing which travels in time that can be measured objectively (Heisenberg, 1978; Suisky, 2009). At the same time, we encounter equally important thinkers who consider time and space as part of the material foundations of the universe; Newton and Einstein are two of these. Between these two approaches we find the experienced time of our everyday life, but also the times of other humanities disciplines: historical time, psychological time, social/cultural time, and so on.

In the intervention that we examine here, the students were tasked to try to theatrically represent the abstract idea of time according to the educational pattern proposed by Dewey for university studies (Stoller, 2018): With the students’ ideas as a starting point and the predetermined practical goal of creating a theat-

rical study as a group, ideas relating to time as well as skills regarding its theatrical-narrative management were built in practice. Here, of course, we expected that a further form of time would concern us; the time expressed through the rhythm of theatrical narration. Structure and rhythm jointly constitute the space-time of the events of a narrative in a way that can be commented upon adequately *ex post*, rather than be used normatively and *ex ante* as a plan for its construction (Pavis, 2006). As a result, the students had to pay attention to the fact that, through its rhythms, the onstage action of their heroes would refer to the desired idea of time (e.g. experienced or psychological time), while, at the same time, certain capricious characteristics of the objective rhythms of nature would take on the role of an “adversary”.

Our central question, in any case, was whether theatrical time would limit the dramaturgical tensions within the framework of the clashes between the “students’ time” and “clock time” or whether theatrical studies would also emerge, which would broach characteristics relating to absolute and infinite linear time, but also to its relativistic variation.

## 2. Structure of the activity – Methodology

The activities took place in the context of a semestral course that 56 students of the Department of Early Childhood Education chose to attend. All the students were at a relatively advanced level in their studies (fifth-semester undergraduates and higher). They worked in twelve groups of between three and six people, participating in a series of activities, chief among them being the creation and presentation of a theatrical study on the theme of time.

During the first phase, after an introductory discussion, the students were asked to ‘draw’ time and, following this, to present and justify their drawings, publicly explaining the concerns that guided them. The drawings and the texts that resulted from the transcription of the discussion constituted a first group of data, which we analysed with regard to their content in order to record the students’ initial ideas, with an emphasis on whether these belonged to categories that characterise personal or objective time. We then asked the students to form larger groups and proceed with an improvisation: “Together with the members of your group, choose an object and craft a short narrative; a story illustrating an action/aspect of the object connected to one or more characteristics of time”. The improvisations were filmed and constituted a second group of data, which were also analysed with a view to exposing other, possibly different, ideas of the students about time and its characteristics.

During the second phase, we combined the teachers’ short lectures and the students’ presentations with the aim of highlighting the multiple faces of time, using sources mainly from the history of the concept in the field of natural sciences.

The third and final phase comprised activities linked to the creation and presentation of the theatrical studies. Here, we used as data for our analysis the videos of the final presentations, which we approached both from a dramaturgical perspective, so as to reveal the promulgation of the objective representations of time in the theatrical productions, as well as in terms of semiotics and aesthetics, in order to evaluate the quality level of the global theatrical productions.

## 3. Results and comments

### A. *The initial ideas about time (from the students’ drawings)*

We collected a total of 24 depictions of time which, after being commented on by the students and the teachers, appear to belong to seven relatively different categories. In particular, the images of time presented by the students were the following:

i. “*Linear*” time. Here we include six drawings of time that were based on a line, but which was by no means a simple straight line. On the whole, the students chose to also give their lines some other characteristics signifying additional properties, beyond the one that could be described as “time passes/flows in only one direction, from the past towards the future”. The only representation whose central motif was a straight line also comprised many small circles, which sliced the line into individual periods given that, as the students explained, “*we experience time through events that last, and not through moments*”. Two other representations used their central line to project the circularity of time in parallel to its linear dimension. The first had the form of a spiral with a symbol of infinity at each of its extremities. In this instance, the students tried to combine the passage of time with the increase of the spiral, at the same time also denoting its circular and *ad infinitum* alteration. In the second representation, the line had the form of a chaotic attractor implying a repetition, but which is never totally the same. In the three other representations, the lines were either jagged or curved, in an attempt to show that time “*has its ups and downs*”, which are more or less violent and sometimes repeat themselves (one curved representation intersected itself in certain points).

ii. *The time of life*. Here, we also find six drawings depicting time as the passage from birth to adulthood and death. In four of these, time was explicitly linear, beginning with the birth of a person and ending with their reaching old age. In the fifth one, the end was signified by death. In the sixth one, the time of life dared to become circular. Here the representation was based on a plant that sprouted, blossomed, produced seeds, withered and gave life to a new plant. In the same category, circular time was also presented in an additional representation of the four seasons, indicated by sketches of plants in different phases of their life, drawn around a circle representing the Earth.

iii. *Time as a number*. Here, three representations of time were drawn as a set of randomly-placed numbers, in two instances inside a frame and in one on a motif referring to the universe. In all three cases, the students explained that they were trying to denote the abstract content of time by likening it to that of numbers. In one of these representations, they tended to suggest that this abstract content is in the foundations of the universe and organises it much in the same way as numbers do.

iv. *Clock time*. Here the students drew, in four different versions, clocks, calendars and the curriculum that regulates their studies.

v. *Time as money*. In only one representation, the students drew a series of banknotes.

vi. *The time of historical evolution/progress*. Here we have another linear time, which is represented through successive depictions of the way in which mankind warmed itself, starting with a burning pile of wood and ending with a radiator.

vii. *Time as change*. Lastly, in two representations the students tried to depict the omnipresent changes. These drawings were not easily interpretable regarding the potential existence of a structure behind the changes. However, in both cases, the students declared that these were unregulated changes, “*everywhere and with no order*”.

All in all, we can say that, despite their complexity and quite often their originality, the students’ representations are guided by their experienced time, even when this is combined with representations of objective time (lines, clocks, etc.). Indeed, the sole instance where the objective/abstract representations dominate occurs in the case of the analogous association of time to numbers. But here we do not have the impression of it being a well-processed representation, which could guide an original theatrical production, nor does the representation of time appear to have been adequately elaborated when it is associated with unregulated changes.

#### B. *The initial ideas about time emerging from the improvisations*

We shall present, here, the improvisation narratives, naming them from the object that inspired them and commenting on the characteristics of time they showcase.

i. *Money*. A small crab works ceaselessly in order to make money, hides it, deposits it... One day, the money slips out of the crab’s pocket and the crab starts to live in misery until it finds it again... Time, as a living, is money!

ii. *The ticket*. It was dark. A metallic sound, very loud, woke me up. The ground gave way under my feet and I started to fall. A strong light blinded me and I felt a human hand grabbing me. With quick moves it placed me in a slot and a series of figures in ink determined the length of my life. I now have an hour and a half’s life. I delved into a dark pocket with two other unknown pieces of paper and I travelled with them for the next few stops. At the end of the journey, my owner placed me on a freezingly cold metal surface. Life is very short after all... This is the narrative of a ticket’s life, in an autobiographical style, with a human outlook and told according to human clock-time.

iii. *Pencil and rubber*. The dialogue between a rubber and a pencil. The first erases the past and the second writes down dreams about the future. A successful improvisation transposing the use of two objects in the context of experienced time bisected into past and present.

iv. *The glasses*. With great joy, Margarita buys a pair of red glasses. She wears them for years and takes great pride in them... Until one day she falls and breaks them. She buys contact lenses and forgets the, now old, red glasses. An improvisation that, through a pair of glasses, portrays the differently experienced periods of human life.

v. *The USB stick*. Since early in the morning, he has been trying to print an essay, stressed out by time... Here, too, the improvisation transfers action and human feelings about time to an object, the instrument of the action.

vi. *The cigarette*. A bank employee: work, routine, break, time for a cigarette! How is it possible that a moment of enjoyment goes by so fast? Psychological time in a human context, based on smoking a cigarette.

vii. *The Department curriculum*. The Department curriculum regulates our tasks and personal time.

An improvisation-protest tailored to the course's context, which essentially brings experienced time into conflict with clock time.

viii. *A playing card* ... which brings to mind events from the past... A flashback improvisation that plays with the past based on an object.

ix. *A chair in the basement*. The chair's dream was to leave the basement. But it is thrown into the rubbish... Somebody picks it up. They paint it and it begins a second life. An optimistic improvisation that once again highlights the time periods in human life by referring to a chair.

x. *The alarm clock*. A clock that doesn't just measure time; it tortures us... The conflict between the time of our desires and clock time, through a cheerful improvisation.

Here also, the students' improvisations, cheerful, light-hearted and imaginative, seem to be oriented towards their experienced time, even when it is combined with representations of objective time (curricula, clocks, etc.). Furthermore, the limited number of abstract elements we came across in the drawings (lines, numbers), which suggested a perspective of evolving towards more scientific representations of time, are totally absent from the improvisations. We therefore transferred all our hopes about the appearance of representations from the more objective and scientific worlds to the teachers' lectures and the students' presentations that came after this, in the process of the creation of the final studies.

### C. *The final studies*.

Below we present and describe the final theatrical studies, simultaneously trying to answer our central question.

i. *A minute, a life*. Time is a... "bad person". When I'm enjoying myself, it runs and the hours become minutes. Then again, when I'm bored, scared or in pain, it moves forward like a baby, crawling.

The narrative begins with a road accident, which takes us to a hospital. There, in the waiting room, we find the relatives of the patient, who is in a coma. The successive scenes of the study attempt to present the different rhythms in the life of the nurse looking after the patient, the relatives who are anxious and the patient himself who, being in a coma, has lost all sense of time. In the end, the patient dies, the relatives leave and the nurse continues her work unperturbed. A tragic narrative, which we suspect that was motivated by personal experiences of the students. It was performed with articulated puppets and puppeteers who were visible to the public, and used theatrical rhythm to signify the different rhythms of the heroes' experienced/psychological time. The differences of these rhythms also created the central message/tension of the study, which concerns the deliberate (or not) lack of communication between people with different interests. It is obvious, of course, that, in this study, objective time representations were either missing or only marginally represented by a fatalistic perception of transposition to the future.

ii. *In Fairyland*. How does time regulate our lives? In Fairyland this is a question that has never been asked, because temporal conventions have never been followed here...

In Fairyland, all the immortal fairies lived in complete disorder, without the existence of time in their lives. A witch suddenly brings them a clock to disturb their peace and quiet. Their life acquires order. They learn to live by organising their time; but by organising time they learn to organise themselves. They therefore organise themselves and expel the authoritarian witch, returning to disorder. A theatrical study that was performed with a paper theatre and which attempted to contrast a perception linking the existence of time with organisation and its absence with disorder. To all intents and purposes, the required performance theatrical rhythms functioned inexorably. The idea of disorder/timelessness did not find satisfactory rhythms for its expression. The scenes that attempted to signify it referred to some sort of frenzied dance (with a latent rhythm), which the witch succeeded in stopping with the aid of the clock and which the fairies resumed thanks to the expulsion of the witch. This is a study that tends to highlight an impasse or, at the very best, a difficult undertaking: the narrative/theatrical representation of an atemporal world.

iii. *Past, present and future*. Does time flow from the past to the future, carrying along the boat of humanity in its course? Or does it possibly flow from the future to the past and humanity is a boat stuck in the middle of its river? Does the future hold surprises or just repetitions?

A narrative that dares to imagine the experienced circularity of time as an anomaly in an objective temporal flow whose course runs in the opposite direction compared to what we usually consider: In a forest there lived an owl, which loved to fly beside its lake. One day, a dinosaur (a symbol of our conventional past) and a robot (a symbol of our also conventional future) appear and lay claim to the lake. As a wise bird, the owl decides to open the gates of the past and the future so as to send each of the uninvited visitors to the time they belong to and keep the lake for itself. Or, maybe, should it send them to reversed time directions? It would be amusing and it would probably not change anything for the owl... A theatrical study performed

with puppets made of simple materials: newspaper, bottles, aluminium foil, and featuring space-inspired scenery created by projecting slides. Its message tries to play with the hypothesis of the realism of subjective time, by making it come into conflict with the flow of situations which, as a rule, “objectively” determine the characteristic of its irreversibility. Irrespective of the signifier problems of the last scene, this is undoubtedly a theatrical study that could have matured had we allotted more time to it, and we consider it to be a study that really challenges the question of distinguishing between subjective and objective time.

iv. *Time changes*. Can we control time? It’s something we would all love to do... if we could. We would prolong our pleasant experiences, we would never run late. But would we have that control?

In the narrative, a man falls asleep while zapping from one channel to the other as he is watching the television. While he is sleeping, he continues to watch the programme and hears on the news that the time is going to change. His dream becomes a nightmare: he misses the bus, arrives late at work and is fired, is late for his date and loses his girlfriend... until he wakes up and realises that the time will only change the following day. Alternating between shadow theatre and black theatre, the study attempts to pose the question of how real or virtual a temporal convention is that adds or deducts hours from the time which is ‘objectively’ measured by clocks and calendars. The narrative brings into conflict the experienced time of everyday life as defined by clock-time, which, although it seems to flow indifferently, in fact functions within the context of social events, building part of their functional conventions.

v. *Joanna’s double life*. Time draws paths for us... which are chosen, for us again, by coincidences...

In the story, a girl sets off on a journey to New York. Her plane hits bad weather and, as of that moment, two parallel series of events begin. In the first one, the airplane loses altitude and crashes. The girl, however, survives and wanders about on a desert island, searches for food, builds a shelter to live in... In the second one, the heroine of the story reaches her destination and begins her holiday. The scenes alternate and the two versions are shown as representations of events taking place in parallel universes. At the close of the narrative, the girl in New York takes the return flight, which crashes into the desert island and destroys the shelter of the girl who had survived, bringing the time of the heroine’s dual life to an end. A theatrical study using shadow theatre, with human shadows and paper figures performing against projections of hand-drawn slides, is guided by a science fiction scenario, which ends up striking a note of fatal and metaphysical pessimism. In this instance, time, adjusted to its own space each time, follows a particular course in each of the two versions; a course that tends to interpret the freedom of personal choices and the temporal coincidences associated to a choice that is made. However, the message is that the freedom of these courses cannot escape a common starting point, nor can it - unfortunately - escape a common end.

vi. *The prisoner*. Time is subjective. Does this also mean that it is somehow relative as well? The end will determine it...

The hero of the story is a prisoner. The hours spent in prison just won’t go by. He decides to escape but he goes noticed as he makes his getaway and a wild chase begins. Time during the agonising pursuit continues to go by slowly, though. Time stops with the policeman’s shot and the end of the prisoner’s life. A study with shadow theatre using cutout paper figures, which attempts to showcase the different rhythms of experienced/psychological time. Another study with a pessimistic ending, and which remains removed from the representations of Nature’s objective time.

vii. *The Devil and Time*. Time is the animated version of immobile eternity. And the stocktaking of our life, the memory of an instance of pleasure or the luxury of regrets...

Time and the Devil fight about who is the strongest and place a bet. In a family, when the father sees the first white hairs in his hair and starts reminiscing about his youth, the devil proposes to give him his youth back in exchange for his soul. Time tries to persuade him to turn down the offer, but it fails. The agreement is struck and the father comes back young, but on his own. Nobody recognises him anymore. A study with black theatre and shadow theatre alternations, which partly reproduces the Faustian myth; desires and realities in the game of human action with its experienced time.

viii. *The time machine*. Scientists “work miracles”. Don’t remove things from their laboratories! Especially if you don’t know what they are working on... But if you do, at least enjoy it!

Two scientists build a time machine. However, the cleaning lady, who has been watching them, secretly enters the time machine and leaves for the future. The machine breaks down and she gets trapped in the past. Will she have a better time than in her potential present? A relatively hackneyed version of science fiction narratives about travelling in time, performed in black theatre. A theatrical study which, discounting its aesthetics, does not offer anything to the study of time.

ix. *If time stopped*. Let me stop time! Let me sleep a little more... enjoy my love affair... manage to catch

the plane. Let me stop time! But which kind of time? Others' time or mine?

The hero of the narrative finds a watch on the street, which has the magical property of stopping time. He uses it to sleep longer, to live in the moment, to catch the plane. However, the airplane crash also halts his own time. Is the magic watch to blame? A classical theatrical study using shadow theatre, which successfully handles metaphysical issues in the context of experienced time.

x. *The train*. Time is a journey into the unknown. And us, we are unsuspecting travellers who try to "regulate" it...

Time is represented here by a train in constant motion. Scenes pop out of each of the train wagons, showing the personal way in which each traveller experiences time. The events in each wagon also represent a different temporal rhythm, linked to the different ages of people's lives: two children play and time goes by quickly and pleasantly; a couple quarrels and then makes up, with time passing according to their emotional state; a grandmother knits and time flows slowly. The train stops. The five passengers disembark. Another train starts off. Yet another theatrical study that attempts to handle the theatrical rhythm so as to signify the different rhythms of personally experienced time. Although the overall structure (which featured a train constructed of human-sized cardboard frames, in whose interior the wagons' different scenes were played in shadow theatre with human figures) presented adequate theatrical characteristics, it appeared that the signifying of the temporal rhythm required more work.

xii. *The bear*. Time is an alternation. From life to death, joy to sorrow, destruction to regeneration.

In this instance, the hero is a male bear. During the winter, he goes into hibernation. In the spring, he discovers that while he was sleeping, his forest was burnt and nothing is left. He goes in search of a new place to live and there he meets the female bear he falls in love with. Using scenery made of corrugated paper and simple paper marionettes, a pleasant children's story is built that showcases - this time in an optimistic manner - cyclical experienced time.

xiii. *Life's cycles/circles*. Time is a cycle/circle, with the same things being repeated again and again. They come back, sometimes swiftly and at other times more slowly... And, if at some point you hear groaning behind a closed door, you should know that it is one of your fellow human beings trying to break the cycle of time...

In this theatrical study, the protagonist appears at three points in his life: as a young pupil at school, as a student while attending university and as a career professional with achieved goals; always, though, without friends or a personal life, entrapped by his goals that look forward to the future and isolated within his recurring cycles/circles. Shadow theatre with paper figures and gelatine paper, performed against scenery that is projected by a slide projector. A pessimistic perspective of circular, personally experienced time.

#### **4. Discussion**

An initial general observation that emerges quite effortlessly from the students' overall work is that, in the end, the management of the concept of time activates rather pessimistic thoughts. Death as the "end of time" is a recurring theme in the theatrical studies, with a frequency we had been unable to predict. Indeed, given that such a pessimistic outlook did not appear to be active as an idea among the students when expressing themselves in their initial drawings or improvisations, a question remains unanswered: was the pessimism introduced by the teachers during the course of the classes (something they consciously tried to avoid) or does a prolonged interest in time ultimately guide the thinking process to the human anxieties hiding within the representations of experienced time?

Because it is obvious that experienced time imposed its rhythms on the rhythms of the successful theatrical studies, especially the studies which used these rhythms to signal the message of the performance (theatrical studies 1, 4, 6, 9 and 10).

On the contrary, when the theatrical rhythms were used to signal an objective, potentially feasible idea about time (such as the idea of eternity in study 2), they fell short of their objective. Basically, the appropriate rhythms for eternity eluded the students.

The theatrical studies that succeeded in conveying alternative images of representations of time to what has been experienced seem to have done so by linking the temporal representations to spatial representations that are conventionally associated with them. This is the case, for instance, when the past is connected to a dinosaur and the future to robots (study 3), or of the parallel universes with parallel trajectories in space (study 5) and of the journeys in time relating to different living conditions (studies 7 and 8). The same practice seems to have also worked satisfactorily in the cases where the studies attempted to highlight the recurring experienced characteristics of time (studies 11 and 12).

All in all, we can say that the completion of this project left us with mixed feelings. On the one hand, it

revealed a difficult question: which theatrical rhythms could interpret temporal flows that are not included in those described by experienced or psychological time? The identification and even the partial answers to such questions can be considered as an achievement of a research project. On the other hand, the atmosphere of general pessimism that prevailed, in combination with the students' incredibly great interest in the subject, made us worry. The research subject rather dealt a blow to the distance that, ethically, researchers should keep from the object of their investigation...

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