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The Eternal return: analysis of the temporal conception in the *Dark* series of Netflix

El eterno retorno: análisis de la concepción temporal en la serie *Dark* de Netflix

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ABSTRACT

This work analyzes the conceptualization of the time approached in *Dark* TV series (Daran bo Odar, Jantje Friese, 2017), broadcasted by Netflix digital platform. The argument presents the conception of time as something cyclical, based on the idea of the eternal return, collected by Friedrich Nietzsche in *The Gay Science* (1882) and *Thus spoke Zarathustra* (1883). Unlike the philosophical idea, Dark states the real possibility of time functioning as an eternal loop, which produces the elimination of the classical conceptions of past, present and future, since the characters can move between these times and influence the events that happen before or after. Through the chapters, the series bases this idea based on elements of science fiction such as: time travel, wormholes and human inventions aimed at changing and altering the course of events in a single timeline, to demonstrate how the actions of a person in different temporal states configure the reality in which we live.

Keywords
Time; Science fiction; Philosophy; Cycle; Future.

RESUMEN

El presente trabajo analiza la conceptualización del tiempo tratada en la serie para televisión Dark *(Daran bo Odar y Jantje Friese, 2017), transmitida por la plataforma digital Netflix. El argumento presenta la concepción del tiempo como algo cíclico, fundamentada en la idea del eterno retorno, recogida por Friedrich Nietzsche en sus obras* La gaya ciencia *(1882) y* Así habló Zaratustra *(1883). A diferencia de la idea filosófica, Dark plantea la posibilidad real del funcionamiento del tiempo como un bucle eterno, lo cual produce la eliminación de las concepciones clásicas de pasado, presente y futuro, debido a que los personajes pueden moverse entre estos tiempos e influir sobre los hechos que suceden antes o después. A través de los capítulos la serie fundamenta esta idea, se apoya en elementos de la ciencia ficción como los viajes en el tiempo, los agujeros de gusano y las invenciones humanas orientadas a cambiar y alterar el curso de los hechos en una sola línea temporal para demostrar cómo las acciones de una persona en diferentes estados configuran la realidad en la que vivimos.*

Palabras clave
Tiempo; ciencia ficción; filosofía; ciclo; futuro.

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Introduction

Throughout its existence, humanity has been interested by how we, human beings, conceive and understand the concept of time. The concern of explaining where we come from, where we are going to and where did the events that occurred to us at specific time took place; these are some of the questions on which philosophy has been pondering since the beginning of civilizations.

To begin with, let us highlight two currents of thought related to the conception of time: the first one is that of the eternal return or eternal recurrence. It is an idea shared by different ancient civilizations such as the Aztec, Indian, Greek or Egyptian. This way of conceiving time materializes in a cyclic reality and the infinity of space that surrounds us; hence, and under these circumstances, the events of the objective reality are repeated cyclically.

The second idea on the conception of time appears later, with the dissemination of the Hebraic and Christian religions that propose a linear conception of time that sustains the thought of the construction of a path with the purpose of arriving to Eden or at the end of times, which means that eternity can only be conceived outside the objective reality (Cladellas, 2009).

While the idea of linear time is more widespread today, some thinkers such as Louis Auguste Blanqui or Friedrich Nietzsche (2002, 2011) sustain the idea of the eternal return as a philosophical hypothesis that attempts to reinforce the concept of superman. More than beyond a topic corresponding to physics, this represents a moral challenge at the moment of making a decision, knowing that the circumstances and events repeat themselves cyclically.

Aristotle was one of the first philosophers in the Western world to ponder systematically on time as a question; his point of reference was the present, i.e, the *now*, which he classified in the past, the present and the future, and denied the existence of the past and future given the impediment to prove where the previous events are located and how to know those to come (Arenas, 2015).

Aristotle determines the existence of time after explaining that it is configured by our conception of change, perceived by the transformation of the objects that surround us, which generates the idea of time as a sequence of instances that establish the measurement (number) of the movement. As time is not a movement, it can be measured through itself. Later, this idea would become the basis of modern physics to establish a systematic definition of time (Aristotle, 1995), constituted by three variables: continuity, transition and extension (Turetzky, 1978).

In the 5th century A.D., Saint Augustine of Hippo followed up on Aristotle's idea and determined the nonexistence of time since it cannot demonstrate the reality of a past nor of an imaginary future, or establish when is the present (Isler, 2008). Saint Augustine explained the intense nature of the present since we cannot determine the duration of this temporal dimension accurately since it is only an instant and, at the same time, all the time it elapses in the present, which is indeterminable. Just like Aristotle, Saint Augustine concluded that time cannot exist without movement, even though these two concepts are not the same. The idea of change through movement is that it allows us to determine the time elapsed (Isler, 2008).

In modern age, there are two schools of thought regarding the conception of time. On the one hand, there is the objectivist theory, which comes from Isaac Newton's studies of physics in the 18th century. From this standpoint, time is objective to the human being and, therefore, measurable through instruments; the time separation of two events is known accurately without any ambiguity. This theory which was studied in physics was the most accepted until the publication of Einstein's theory of relativity (Cladellas, 2009).

The subjectivist theory, proposed by Immanuel Kant, establishes that time can be explained from individual experiences. Hence, it is a personal construction. This idea transfers the time conception to the field of psychology and is directly confronted with the linear and objective notion of physicists (Cladellas, 2009).

In the 20th century, Henri Bergson reinforced the idea of time subjectivity and, in order to explain said idea, he divided it into two forms; the first, the time we can measure with instruments –the objective time–; the second, the "authentic" time configured by our own perception. The duration lived will be the time of consciousness, given in intuition, the field of con-fusion of time and the awareness of its common becoming. The notion of "immediate datum of awareness" is related to the internal feeling of duration which is "the shape that takes the sequence of our states of awareness when our self is being lived, when it refrains from establishing a separation between the present state and the previous states" (Guinard, 2003).

With the theory of relativity, Einstein demonstrated that the idea of time depended on the circumstances and on the perspective from which it is measured. Along these lines, time depends on other variables as speed or the mass of objects moving into space, which discards the postulate of an absolute and immutable time (Navarro, 2006).

Albert Einstein and Nathan Rosen published a study on this topic in *The Particle Problem in the General Theory of Relativity* (Einstein and Rosen, 1935). In this study they propose: "a geometric model of an elementary physics particle where

space was represented by two identical and parallel sheets in such a way that the particle would be the bridge that connects them avoiding singularities" (Isea, 2016 p. 13). This theory provides the conception of wormholes, as coined by Wheeler in 1957 (Isea, 2016). The theoretical study of these postulates has led to the approach of a possible travel through time; however, to put it into practice would require a too large amount of negative energy. Current technology does not allow performing this type of experiment or corroborating the theory of time travelling in a real way.

Stephen Hawking (1999) continued developing Albert Einstein's ideas and formulated theories related to the existence of other spaces or dimensions outside the known reality where time does not behave in a linear manner as understood until now. Movement, thus, remains the protagonist in those postulates. The possibility to control the other variables that influence the conception of time allows us to dream of other circumstances not discovered or explained by science until now; hence, the idea of time must continue evolving from the psychological and the physical, the tangible and the intangible, the objective and the subjective.

Throughout the history of humanity, the study of the concept of time has prompted different schools of thought to explain everyday phenomena. The objective and subjective views are highlighted. The first is measurable and quantifiable, typical of exact sciences; the second is a more subjective and philosophical view, aiming at explaining from introspection, the idea of time as dimension.

***Dark*: story arc**

Dark is a German science-fiction thriller television series co-created by Baran bo Odar and Jantje Friese in 2017. The plot is set in the fictional German town of Winden, located in a place similar to the German Black Forest region. Winden is a small town surrounded by thick forests and a series of underground cave galleries.

The story narrates the events occurring in four families of the town: Kahnwald, Nielsen, Doppler and Tiedemann, in three different time lines: 1953, 1986 and 2019. The story begins in 2019 and the main arc, i.e., the present of the series. A span of 33 years separates the time lines from one another and the characters interact between these time lines since they travel between each time line through a wormhole, which is a kind of portal that connects the three time lines.

It should be mentioned that the wormhole represents a portal between three universes, located at a specific point in the underground cave galleries that cross the town where the story occurs. The inexplicable disappearances of children and the chilling appearance of children's bodies (that correspond to other time lines), close to

the caves, are the events on which the main plot unfolds. The story continues with the issues that each family must face in order to try to explain the mystery of the travels in time and of the missing children.

The plot of the series unfolds with the disappearance of Mikkel Nielson, in 2019, in the forest close to the entrance of one of the caves. Without further explanation and suddenly, Mikkel is transported to the year 1986. He was adopted by Ines Kahnwald, a nurse, and raised under the name of Michael Kahnwald. In the future, we see how Michael's character commits suicide in 2019, close to the date on which his "Self" is on the verge of disappearing as he enters the caves.

The conception of time in *Dark*

According to the comments made on the series, one of the breaking points of the plot is the possibility of time travelling through a wormhole. This is a hypothetical topological characteristic of space-time, described in the general relativity equations. In a theoretical hypothesis, a wormhole would cause the transfer from one temporal dimension to another, even though this has not been corroborated in practice. The contributions of Einstein's theory of relativity, of the string theory and the research studies of Stephen Hawking on black holes, mark a before and after of the characteristics of the universe without them having yet been demonstrated in practice.

Dark uses the figure of the wormhole to explain the travels between the three temporal dimensions that unfold throughout its storyline. The construction of a nuclear power plant close to the town in 1953 is the main cause of the birth of this wormhole through which the characters' travel in time. The release of energy from the nuclear power plant could have activated this hole which is at a central point in the maze of caves that crosses the town.

From the beginning, *Dark* proposes the idea of time not as a linear dimension, as we all know and accept, but as an infinite loop based on the concept of eternal return, disseminated in the Western world by Nietzsche (1882) as a philosophical conceptualization of the facts, and based, in turn, on the conception that ancient civilizations such as the Mayas, Indians and Chinese and the ancient Egyptians, had of time (Navarro, 2006; Guinard, 2003).

From the first episode of the series, with Michael Kahnwald's death, time is represented as a cyclical variable; the subsequent explanation justifies Mikkel's disappearance; both events occurred in 2019. Michael and Mikkel are the same person at different ages; this poses one of the most known paradoxes on time travelling: if someone travels to the past, what happens then with their *self* in the present? Is it

possible that both beings meet at same point in the future? In *Dark*, Mikkel and Michael coexist in the same reality, which transgresses this paradox.

The plot of the series unfolds from the commonalities shared by the four families who, in the story, perform as collective characters. Hence, Mikkel Nielsen, by becoming Michael Kahnwald, creates his own family, and it is precisely his son Jonas who travels to the past to find out what has happened to Mikkel and unveils the mystery.

The story continues with the intervention of Ulrich Nielsen (Mikkel's father) and Charlotte Doppler, who are in charge of finding one of the children that disappeared in 2019; both police officers are from the town of Winden. The actions of the series constantly unfold between time leaps to explain the events that occurred between 1953, 1986 and 2019. Hence, we realize that in 1953, the Doppler family was in charge of managing the nuclear power plant as of its construction.

Egon Tiedemann and Daniel Kahnwald are the two police officers in charge of investigating the appearance of children bodies close to the power plant. Therefore, an element common to the three time contexts appear: the mysterious disappearance of children and the simultaneous appearance of the bodies of other children, without any apparent explanation. The investigations unfold in parallel in 1953 and 2019.

There is a timeless character that shows up in all the universes without changing his physical appearance. His name is Noah and he is dressed as a priest. Noah is the only character that knows about the possibility of traveling through time through the wormhole. His role in the story is to generate a device or mechanism to travel more easily without being restrained by the wormhole (33-year travelling into the past or the future, always between 1953, 1986 and 2019, without any apparent reason and at random). In order to achieve this, he does his experiments on several children; hence, clarifying the mysterious disappearance of the children and the simultaneous appearance of bodies in other time realities.

While the plot of the series does not specify that one can travel beyond the epochs represented, there are two characters that, according to the scripts provided by the series, can be interpreted as coming from the year 2052; Jonas Kahnwald and Claudia Tiedemann, who come back to the past with the purpose of changing the events and destroy the mechanism that allows the different lead characters of the series to travel between these three time lines.

Hence, the configuration of one of the most important themes supported by the series in its time conception is completed and justified; the past influences the future and the future influences the past, i.e., everything is interconnected. There is no

beginning or end; time is like a circle in which all the events coexist, all the temporal realities are linked together.

Therefore, the Jonas of 2052, warns the same Jonas who travels to 1986 that he must not interfere in the course of events; Jonas and Claudia travel to 1953 to help H. G. Tannhaus, a watchmaker, by providing him with sufficient technological elements to build a device that will work as a time machine that will make them move more easily through the wormhole.

While these facts do not have a coherent explanation in an objective reality, the possibility of travelling through time, whether to the future or the past, and influence the destiny of the characters, justifies the series proposal. All the events are predetermined by one single thematic thread, even though the characters are not aware of what is happening and they attempt to use the wormhole as an inter-dimensional door to change the course of their lives and solve the problems they are facing.

In the series, we note that all the travels have a meaning and an explanation; the decisions taken by the characters have a direct influence on the outcome of the life of each one of them, i.e., there is no specific present but rather time moves cyclically as a result of the immutable path of events.

Conclusions

Dark proposes a conspicuous way of understanding the concept of time which does not correspond to the classical tradition of time as linear dimension where the past, present and future occur in a logical and orderly manner. Hence, *Dark* is based on the cyclical notion of time and tries to bring it to a practical dimension: a universe where the past can influence the future and *vice versa*.

The existence of elements such as wormholes and time machines is based on the theories of physics of scientists that inquired and divulged concepts such as the presence of parallel universes and the composition of black holes; these two factors are decisive since they orchestrate and prompt the reality of the town of Winden so the characters from the story can travel through time and influence the events of the past or the future.

Dark revisits the philosophical notion of time as a loop where events are repeated endlessly. As seen in the theories previously mentioned, philosophers such as Aristotle, Nietzsche or Kant pondered on the nature of time and they all agreed that time is not necessarily linear, as physicists have explained. Despite the advance of theoretical proposals on how the universe functions, there are still many questions

to answer regarding the possibility to travel through time, the existence of parallel universes, the structure of black holes and other enigmas that have not yet been solved.

Science fiction exploits concepts from physics, bringing them from theory to practice in order to reflect and raise questions such as: what could happen if wormholes and machines that transport people between different time realities existed?

While there are aspects of the operation of time travelling that are not that clear in *Dark* –at least not in the first season–, its premise regarding the construction of stories that entail being transported into other times, is innovative and goes beyond the ideas that are already a canon in the sci-fi genre of writers such as H. G. Wells or Isaac Asimov.

Dark combines the philosophical conception of the eternal return as *leitmotiv* to generate a story in which circular time elapses in our context, time travelling is part of the need to preserve the continuity of events.

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