

# Bodies in Space and Time

## Time Travel in INTERSTELLAR (Christopher Nolan, US/UK 2014)

### Abstract

This article discusses the motif of time travel in the science-fiction film INTERSTELLAR (Christopher Nolan, US/UK 2014). Time travel is a common motif in modern science-fiction films and series. The discussion here focuses on the anthropological dimensions of time travel from a hermeneutic perspective. INTERSTELLAR contains both a climate catastrophe and a technological optimism that enables time travel. The pseudo-scientific time travel is connected with symbols from the Christian tradition. Intriguingly, time travel is portrayed in light of indirect physical communication. From an anthropological perspective, pseudo-scientific time travel reflects and explores identity issues. The crossing of space and time and their simultaneous constraint lead the viewer to reflect on their own cultural life-world. In INTERSTELLAR, time travel is a journey into the past that locates the traveler back in the present and brings hope for a better future.

### Keywords

Time Travel, Christian Tradition, Passion, INTERSTELLAR, Anthropological Dimension, Hermeneutic Process

### Biography

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Historically, science fiction has served as a space for cultural and anthropological reflection. It has portrayed events and discourses and displayed forms of coping, ideology criticism, and collective reflection.<sup>1</sup> Contemporary science-fiction films often portray time travel, a motif that has received significant attention from filmmakers and producers. This motif explicitly addresses humanity's

1 Johnston 2011, 27–40.

embeddedness in history and the struggle with the limits of human existence. Fictional time travel in science fiction reflects cultural perceptions of the present and picks up on the tension between human control and confrontation with a given uncontrollable world.<sup>2</sup> Notable examples include economically successful productions from the Marvel Cinematic Universe, such as *AVENGERS: ENDGAME* (Anthony Russo / Joe Russo, US 2019), *SPIDER-MAN: NO WAY HOME* (Jon Watts, US 2021), and *DOCTOR STRANGE IN THE MULTIVERSE OF MADNESS* (Sam Raimi, US 2022). Time travel also remains a popular topic in science-fiction series. In a nostalgic reminiscence, time travel becomes a motif in the second season of the series *STAR TREK: PICARD* (CBS, US 2020–2023), while mini-series like *DEVS* (Alex Garland, US 2020) evoke a critical perspective on free will and human self-placement by delving into the tragic past and unalterable future.

In many of these works, cinematic time travel involves a dual crossing of boundaries, into both another time and another space. In science fiction this experience is reinforced by explicit representation of diegetic time travel.<sup>3</sup> This double immersion into a counterworld engages the viewers' imaginations and draws viewers to consider their own identities.<sup>4</sup> Following Paul Ricœur, Pierre Bühler notes that in the encounter between recipient and film, understanding and interpretation always involve the positioning of the audience in front of the work.<sup>5</sup> The distanced encounter with the work involves reflection by the viewer on their own situation.<sup>6</sup> An imagined journey through time is a constant of human existence, for remembering and reflecting on past events and decisions is central to current and future actions. Time travel is thus a crucial anthropological aspect of individual and collective engagement with reality. The visibility of time travel in film provides an individual and collective space for anthropological self-positioning within the viewer's own culture. The cinematic encounter with this motif explicitly calls hermeneutical for historical review and critical examination of the present. See in this light, time travel is an identity process that captures a reflective and backward-oriented engagement with the complex experience of reality.

Science fiction that involves time travel is particularly intriguing from a religious-studies perspective. Here science fiction appears as the realization

2 Helbig/Rauscher 2022, 1–8.

3 Seeßlen 2003, 648–650.

4 Bühler 2009, 14–19.

5 Bühler 2006, 411.

6 Bühler 2006, 411.

of a rational and scientifically enlightened worldview, which seems to have prevailed over a superficial normative orientation.<sup>7</sup> Its technical and physical characteristics make time travel part of a scientific, rather than anthropological, discourse. At the same time, pseudoscientific representations of time travel transcend the viewers' experience and are a way of negotiating transcendence. From an anthropological perspective, time travel in science fiction performs the human experience before a backdrop of linearly progressing time. It raises the finitude of life and thus also the tension between contingency and teleological concept of humanity that is found, for example, within the Christian tradition.<sup>8</sup> There the tension is condensed in the various versions of what is termed the Passion narrative, Christ's journey of suffering and resurrection. Thus, within the multitude of media narratives, a specific temporal event is endowed with supra-individual and timeless significance.<sup>9</sup> It is therefore intriguing how the Christian narrative of the Passion is connected with the motif of time travel.

Exploration of time is a central theme in the films of director Christopher Nolan. Between 2010 and 2020, Nolan produced three Hollywood blockbusters that engaged with time travel through non-linear storytelling.<sup>10</sup> In *TENET* (Christopher Nolan, US/UK 2020), *INTERSTELLAR* (Christopher Nolan, US/UK 2014), and *INCEPTION* (Christopher Nolan, US/UK 2010), time is portrayed as fundamentally relative and manipulable by humans.<sup>11</sup> The representation of time forms an intra-filmic constant, breaking with linear time and handled in various ways.<sup>12</sup> With time presented as the dominant category of human life, existential questions are explored through experience and the imagination. In this article, I focus on the film *INTERSTELLAR*, where time travel is represented with reference to the Christian tradition.

## The Family as a Metaphor for Time Travel

The film *INTERSTELLAR* begins with an Earth that appears compatible with our reality, for ongoing climate change has brought the human species to the brink of extinction. Joseph Cooper, a former engineer and pilot, manag-

7 Luckhurst 2009, 403.

8 See, for example, Pannenberg 1995; also Sölle 2014.

9 Fritz/Mäder/Pezzoli-Olgiati/Scolari 2018.

10 Kriesch 2022, 185–186.

11 Kriesch 2022, 185–186.

12 Kriesch 2022.

es corn fields on his farm in the American backlands, the last available food source for humanity. Cooper, a widowed father of two, lives with his father-in-law in a scientifically enlightened world on the brink of apocalypse. Cooper's reality is devoid of religion and hope for a transcendent reality, for impending catastrophe seems the only option. The cinematic narrative starts with a family story. The dynamics between Cooper, his children, and the grandfather metaphorically portray time travel in terms of the conflict of generations: the grandfather represents an abundant past; the children, Murph and Tom, face the fragility of the future; between this wasteful past and a threatened future, Cooper exists in a disillusioned and bitter present where humanity has lost its ability to dream and hope.

## **Between the Nursery and the Black Hole**

The plot takes viewers into the room of the daughter, Murph, where through seemingly supernatural events, Cooper and Murph receive the coordinates of the last secret NASA facility on Earth. As the story unfolds, Cooper agrees to pilot an interstellar NASA mission, leaving his family in order to find a new home for humanity on a distant planet, a voyage made possible by a black hole near the planet Saturn. Travel through this physical object will allow the space-time continuum to be manipulated, as, according to Albert Einstein's theory of relativity, the black hole allows the materialization of time as a physical dimension. Because of the space-time shift within the black hole, time passes more slowly for the team of astronauts, including Cooper, as they travel to a distant galaxy than for the process of aging on Earth. Bad decisions, betrayal, and death turn the mission into a disaster and the attempt to save humanity seems hopeless.

To save the astronaut Amelia Brand and the frozen fertilized eggs on board the spaceship, Cooper plunges directly into the black hole. Instead of being killed by gravity, Cooper finds himself, along with the AI Tars, in a space of the fifth dimension. The space he occupies is a reproduction of Murph's nursery. He is located behind the room and can observe past moments in the nursery through the transparent bookshelf. Duplications of the nursery give him access to every past moment that has occurred in this room. The countless interconnected duplications make the nursery appear as a vast cathedral, through which Cooper glides weightlessly (fig. 1).

The viewers witness a desperate Cooper, who can see his daughter in her childhood through the bookshelf but cannot reach her. The bookshelf forms the boundary between father and daughter.



Fig. 1: Cooper floats through the space of the fifth dimension. Film still, INTERSTELLAR (Christopher Nolan, US/UK 2014), 02:15:35.

In a conversation with the AI Tars, who has also reached the fifth dimension, Cooper realizes that he can communicate with his daughter via gravity. He sends messages by dropping books, manipulating a wristwatch, and creating patterns in sandstorms. At the climax of the film, Cooper becomes a time traveller able to send his daughter as both a child and an adult the scientific information needed to save the world. The supernatural events at the beginning of the film are retroactively revealed as messages from Cooper to his younger self. The love between father and daughter enables Murph to recognize and understand her father's messages. In the end, Cooper, now well over 100 years old but physically unchanged, returns to humanity and can see his daughter, as an elderly woman, one last time before her death (fig. 2).



Fig. 2: Cooper reunites with his daughter after returning from the black hole. Film still, INTERSTELLAR (Christopher Nolan, US/UK 2014), 02:33:51.

## Semiotic Dimensions in INTERSTELLAR

INTERSTELLAR contains a complex interplay of religious references and symbols, fictional applications of theories of physics, and anthropological statements. In a captivating analysis, Bina Nir has highlighted the cinematic references from the Judeo-Christian tradition.<sup>13</sup> In her interpretation, the film recapitulates numerous motifs from the biblical narrative of the Flood and the election of Moses, and it adapts the figure of Jesus in the character of Murph. INTERSTELLAR is all the more intriguing as its time travel, applied as the theory of relativity, was substantiated by the expertise of Nobel laureate Kip Thorne.<sup>14</sup> The cinematic portrayal evolves into a visualization of an actual physics-based phenomenon.<sup>15</sup>

The motif of time travel is visually and auditorily discussed in various variations within the cinematic diegesis. Communication between Cooper and Murph through time is facilitated by materializations of time. The bookshelf represents the preservation of time, while messages in the sandstorm evoke an hourglass. The wristwatch, a gift from Cooper to his daughter, symbolizes both the linear progression of time and its cyclic recurrence. The watch is also present as symbol of time in the film score, composed by Hans Zimmer. While the astronauts' expedition to one of the planets is disastrous, the ticking sound of the clock in the film score makes the merciless progression of time audible.<sup>16</sup> In INTERSTELLAR, time and time travel become defining motifs to which the film self-referentially alludes. The visual and auditory representations of time, such as the wristwatch, the falling books, or the ticking of time, lay out various concepts of time. These audio-visual references can be read as condensations of the film's plot and message. Thus, the audible ticking of the clock is not merely a dramatic element but interprets the divergent concepts of time on the alien planet and on Earth.

### Time Travel as a Process of Physics

Time travel is most evident from the advancing age of Murph and Tom, visually evident on their bodies. Cooper remains unchanged; preserved in the fifth dimension, he cannot transcend the boundaries of time. He remains behind the

13 Nir 2020, 53–69.

14 Thorne 2014.

15 Thorne 2014, 138–145.

16 Kriesch 2022, 185.

Fig. 3: Cooper helplessly observes his younger self saying goodbye to his daughter Murph in the past.  
Film still, INTERSTELLAR  
(Christopher Nolan, US/UK  
2014), 02:19:51.



bookshelf and cannot reach his daughter, but the messages he sends Murph are a form of physical communication. He uses Morse code and binary signals to send crucial information and exploits gravity, but recognition and understanding of the messages are primarily a product of the love between father and daughter. In entering the fifth dimension, Cooper is placed in a transcendent reality. The staging of the fifth dimension is anthropologically fascinating, as it involves a self-reflective look at one's own life. With this focus on the self, INTERSTELLAR opens a reflexive perspective on humanity's embeddedness in its own historicity. Anthropology in this context entails the collective exploration of human existence in relation to a space-time dynamic reality. Through the veils of dimensions, Cooper observes not only Murph but also his younger self. The moment of desperation when he shouts to himself through the bookshelf not to leave his daughter can be interpreted as a symbolic sacrifice and key hermeneutic moment (fig. 3). Cooper sees his own life as a film.<sup>17</sup>

Full of regret, he reflects on his decisions that led to his separation from his family, before ultimately acknowledging the necessity of his past choices and conveying to his younger self the symbols that take him into the fifth dimension. The film introspects and opens up an existential dimension.<sup>18</sup> The fact that the communication between the transcendent Cooper in the fifth dimension and his younger self and daughter occurs indirectly through mediated symbols underscores the interpretation and appropriation of the world through symbols, which is integral to anthropology. The signs and symbols in the film that initially seem to viewers arbitrary develop meaning. Time travel addresses the historical embeddedness of humanity, but it also emphasizes the uniqueness and complexity of life. While Cooper can observe his former life, he can never return to it. The boundary between Cooper and

17 Früchtl 2017.

18 On cinematic self-reference see Pezzoli-Olgiati 2019, 15–17.

Murph allegorically recapitulates humanity's finding itself in history and the ongoing need to interpret and appropriate the world through symbols. In this way the time travel in INTERSTELLAR leads viewers into the present of their own perception and interpretation of the world. The solution to saving humanity, albeit dimensionally shifted, is found on Earth.

## Time Travel and Passion

From a religious-studies perspective, it is intriguing that Cooper's time travel in the fifth dimension can be seen as an adaptation of the Passion story from the Christian tradition. Drawing on various elements of the Passion narratives, Cooper is staged as a distorted Christ figure.<sup>19</sup> Cooper metaphorically dies a sacrificial death for Amilia Brand and the fertilized eggs, representing humanity's last chance for survival. The plunge into the black hole and entry into the fifth dimension can be interpreted as a descent into the abyss and a scene of death. Cooper experiences his viewing of his younger self and abandoned daughter as a passionate and irreversible tragedy. Cooper's transition from desperation to redemption forms an apotheosis: the human father becomes the transcendent (holy) spirit. The words "You were my ghost!"<sup>20</sup> mark the moment of revelation when Murph identifies her transcendent father as the sender of the supernatural messages. Cooper's return to his daughter when her death is imminent expresses the eschatological concept of Christ's return at the end of the world.

The Christian idea of the Trinity is expressed in the narrative transition of Cooper and Murph. Their cinematic actions can be interpreted as fragmentary and correlative references to the concept of God as Father, Son, and Holy Spirit. While the film initially relays Cooper's actions as those of a chosen messianic figure who symbolically sacrifices himself by plunging into the black hole, a reconfiguration of the Trinitarian roles occurs upon his entering the fifth dimension. There he is transformed into the divine Father, while Murph evolves into the chosen daughter and a female Christ figure.

Nir notes that at the peak of the film Murph is 33 years old, an allusion to the age of Jesus when he was crucified.<sup>21</sup> Moreover, through Cooper

19 For cultural adaptation of the Passion story, see Fritz/Mäder/Pezzoli-Olgiati/Scolari 2018.

20 INTERSTELLAR, 02:20:35–02:20:36.

21 Nir 2020, 68.



Murph is identified by the creators of the fifth dimension as the chosen one. Murph's hope for her father's return to save the Earth is another element where Murph resembles a Christ figure. Crucial to the cinematic narrative is the love between father and daughter, which can be interpreted as an adaptation of the divine love between Jesus, God the Father, and the Holy Spirit. The symbolic communication between Cooper and Murph by means of falling books and the hands of the watch is from Murph's perspective the action of a (holy) ghost. Cooper is interpreted by the audience as a divine father figure, while Murph's actions depict him as a transcendent (Holy) Spirit. The Christian motif of the Trinity is thus narratively explored in the dynamics of the relationship between Murph and Cooper. *INTERSTELLAR* portrays the Trinity through relational perspectives on Cooper (and Murph) as a divine figure, mirroring the theological terms of the Trinity within the Christian tradition.<sup>22</sup>

## Conclusion

*INTERSTELLAR* contains a complex interplay of motifs from the Christian tradition that are combined with the motif of time travel. Time is rendered measurable and manipulable, a scientific take that is intertwined with anthropological themes. In the narrative, the love between father and daughter is elevated to a physical measurable entity. *INTERSTELLAR* can be seen as a critical examination of a reductionist understanding of reality. Through a combination of religious and scientific references, time travel becomes an ideological critique of the viewer's life-world. Cooper's reflection on his own history becomes a critical examination of the viewer's history. It is no coincidence that the film's premise, to which climate change and resource wastage are integral, directly connects to contemporary discourses. The time travel in *INTERSTELLAR* opens up a reflective perspective on individual and collective cultural histories. Time travel allows the film to articulate hope for a better future and triumph over current and future challenges and crises, despite past events and their influence. A better future is conditional on our recognizing and understanding the signs that surround us. The framework for this semiotic understanding of the world is love, coupled with rejection of an egocentric and personally advantageous culture.

<sup>22</sup> Joest/von Lüpke 2010, 287–313.

## Bibliography

- Bühler, Pierre, 2006, "Als Leser finde ich mich nur, indem ich mich verliere." Zur Einführung in die Hermeneutik Paul Ricœurs, *Theologische Zeitschrift* 62, 3, 399–419.
- Bühler, Pierre, 2009, Welt und Gegenwart in hermeneutischer Perspektive. Eine einführende Betrachtung, in: Martig, Charles / Pezzoli-Olgiati, Daria (eds.), *Outer Space. Reisen in Gegenwelten*, Marburg: Schüren, 14–31.
- Fritz, Natalie / Mäder, Marie-Therese / Pezzoli-Olgiati, Daria / Scolari, Baldassare (eds.), 2018, *Leid-Bilder. Die Passionsgeschichte in der Kultur*, Marburg: Schüren.
- Früchtl, Josef, 2017, Warum wir ins Kino gehen. INTERSTELLAR und das cineastische Raum-Zeit-Kontinuum, in: Jaspers, Kristina / Warnecke, Nils / Waz, Gerlinde / Zill, Rüdiger (eds.), *Future Worlds. Science Fiction Film*, Berlin: Bertz + Fischer, 12–25.
- Helbig, Jörg / Rauscher, Andreas, 2022, Einleitung, in: Helbig, Jörg / Rauscher, Andreas (eds.), *Zeitreisen in Zelluloid. Das Motiv der Zeitreise im Film*, Trier: Wissenschaftlicher Verlag Trier, 1–8.
- Joest, Wilfried / von Lüpke, Johannes, 2010, *Dogmatik I: Die Wirklichkeit Gottes*, Göttingen: Vandenhoeck & Ruprecht.
- Johnston, Keith M., 2011, *Science Fiction Film. A Critical Introduction*, London / New York: Bloomsbury Academic.
- Kriesch, Désirée, 2022, "Let's look at time differently." Zeitumkehr, Palindrome und das Bootstrap-Paradoxon in Christopher Nolans TENET, in: Helbig, Jörg / Rauscher, Andreas (eds.), *Zeitreisen in Zelluloid. Das Motiv der Zeitreise im Film*, Trier: Wissenschaftlicher Verlag Trier, 185–200.
- Luckhurst, Roger, 2009, Pseudoscience, in: Bould, Mark / Butler, Andrew M. / Roberts, Adam / Vint, Sherryl (eds.), *The Routledge Companion to Science Fiction*, London: Routledge, 403–412.
- Nir, Bina, 2020, Biblical Narratives in INTERSTELLAR (Christopher Nolan, US/GB 2014), *Journal for Religion, Film and Media* 6, 1, 53–69, <https://doi.org/10.25364/05.06.2020.1.4>.
- Pannenberg, Wolfhart, 1995, *Was ist der Mensch? Die Anthropologie der Gegenwart im Licht der Theologie*, Göttingen: Vandenhoeck & Ruprecht.
- Pezzoli-Olgiati, Daria, 2019, *Religion in der Kultur erforschen. Ein Essay*, Zürich: Pano.
- Seeßlen, Georg / Jung, Fernand, 2003, *Science Fiction. Grundlagen des populären Films*, vol. 2, Marburg: Schüren.
- Sölle, Dorothee, 2014, *Mystik des Todes. Ein Fragment*, Freiburg im Breisgau: Herder.
- Thorne, Kip Stephen, 2014, *The Science of INTERSTELLAR*, New York / London: W. W. Norton.

## Filmography

- AVENGERS. ENDGAME (Anthony Russo and Joe Russo, US 2019).
- DEVS (Alex Garland, Hulu, US 2020).
- DOCTOR STRANGE IN THE MULTIVERSE OF MADNESS (Sam Raimi, US 2022).
- INCEPTION (Christopher Nolan, US/UK 2010).
- INTERSTELLAR (Christopher Nolan, US/UK 2014).
- SPIDER-MAN. NO WAY HOME (Jon Watts, US 2021).
- STAR TREK: PICARD (Created by: Alex Kurtzman, Akiva Goldman, Michael Chabon, and Kirsten Beyer, CBS, US 2020–2023).
- TENET (Christopher Nolan, US/UK 2020).