

MATTHEW  
McCONAUGHEY

ANNE  
HATHAWAY

JESSICA  
CHASTAIN

MICHAEL  
AND  
CAINE



GO FURTHER.

FROM THE DIRECTOR OF THE DARK KNIGHT TRILOGY AND INCEPTION

# INTERSTELLAR

IN THEATRES AND IMAX  
EVERYWHERE  
NOVEMBER 7

WARNER BROS. PICTURES

LEGENDARY

SYCOP

interstellarmovie.com

#interstellar

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IMAX

Interstellar is about Earth's last chance to find a habitable planet before a lack of resources causes the human race to go extinct.

Interstellar is deeply philosophical in that **it prompts not merely the question of the meaning of my life, your life, or an individual's life, but the question of the meaning of the life of the human race as a whole.**

**It is about epistemology (relating to the theory of knowledge)**

Takes place 40-70 years from present (assessed from baseball conversation and character ages)

There are two plans in the *Interstellar* plot:

- **Plan A** involves Cooper transmitting quantum data back to Earth in order to develop a gravitational propulsion theory that will allow spacecrafts to carry people off Earth into the other galaxy.
  - *This is a sham; people on earth will die, because the gravity equation required to get the stations into space needs data from within a black hole, which can't be obtained.*
- **Plan B** involves Cooper's crew finding the remaining Lazarus crew and establishing a colony on another world.

# Philosophy film 'Interstellar'

## Some preparatory lecture notes topics and concepts...

Free will v. Destiny

- **Destiny is a predetermined course of events.**
  - ↳ May be conceived as a predetermined future...a concept based on the belief that there is a fixed natural order to the universe.
  - ↳ Destiny is regarded by some as **fate, a fixed timeline of events that is inevitable and unchangeable, and the future is knowable** through means as divination or religious awareness
- **Free will is choice/agency toward an unwritten future.**

**Responsibility**  
**Ethics**  
**Morals**  
↳ **Categorical imperative**

Existential threats of an environmental nature

- ↳ Was it human caused?
- ↳ Why was corn the last crop? *(It holds solar energy better.)*

Interstellar is exposing the basic notions of humanity by **emphasizing the way society has to think to value its own lives.**

- ↳ *Donald and Cooper are arguing whether to derive benefits from Earth or to start searching for something better in the stars.*

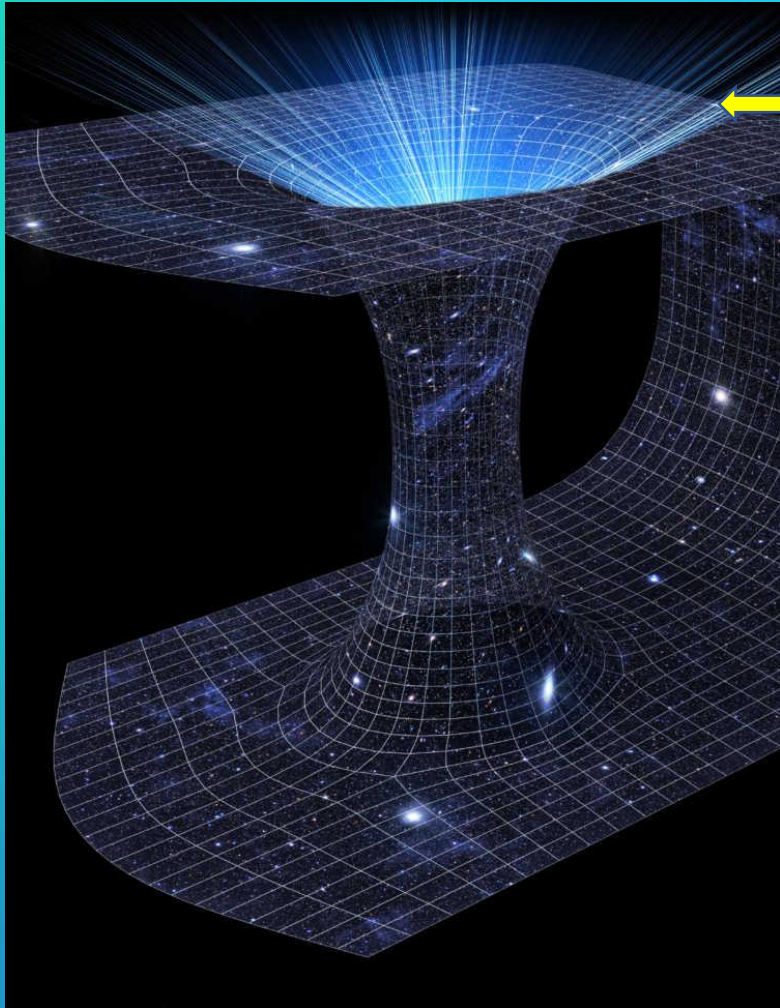
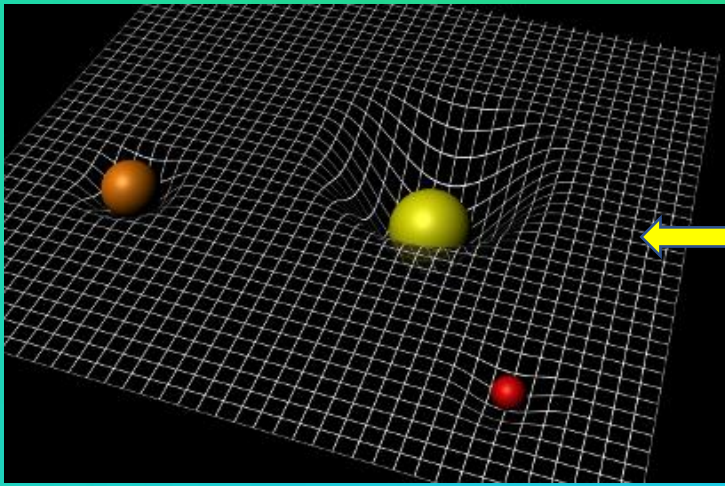
Paradox  
↳ *(embedded in the message at the end, wherein future events shape past happenings)*

Temporal Mechanics  
↳ "Temporal" is anything having to do with time. Some views . . .

- **All possibilities which can happen, do happen in some dimension; we are only cognizant on our one reality.**
- 'Back to the Future' syndrome... **changing history from the past only creates a new parallel dimension of possible outcomes.**

Environmental issues  
↳ Have humans exceeded the caring-capacity of the planet?

Rewriting of history  
↳ Dystopia or utopia?  
↳ Film shows us a path out of dystopia to something better, perhaps even utopia



## Theoretical physics

### ➤ Relativity

↳ instead of being an invisible force that attracts objects to one another, gravity is a curving or warping of space. The more massive an object, the more it warps the space around it.

### ➤ Five dimensions?

↳ 1<sup>st</sup>-Length, 2<sup>nd</sup>-width, 3<sup>rd</sup>-height, 4<sup>th</sup>-time (*film: our descendents exist in a fifth dimension; their experience of time is not linear as ours is.*)

### ➤ Wormhole – like funnels that connect two distant points in spacetime

➤ Black holes – area of spacetime that have such gravity that nothing can escape; “event horizon” (Einstein theory of relativity) is the point in a black hole where nothing can escape nor be observed. Many theoretical physicists believe the event horizon serves as a barrier to the unknown physics of a black hole singularity.

↳ Compressed spacetime? Antimatter? *In this film, a singularity is a portal to the fourth dimension*

### ➤ Gravity and time,

↳ Differences in gravity and relative velocity cause time dilation.

↳ Time dilation: when close to a gravity source, time changes (*film: one hour on water planet is equivalent to 7 hours on earth or in orbit*)

The worldview is primarily **humanist existentialism**, especially at the end, but it's not the only worldview represented.

The outlook provided by the characters is extremely positive and optimistic, truly believing, not only in meaning and purpose, but also in hope.

↳ Proposes **love/emotion as a power which rivals that of gravity/physics**

↳ The profound themes of **family love, hope, agony, saying goodbye, determination and human endurance** are all ever-present

↳ Interstellar shows how **love is bound to time, through sentimentalism, grief and the eventual acceptance that our loved ones exist after death, can see us, and even communicate with us in paranormal ways from their dimension**

## Nihilism

↳ Nihilism argues that **the world, especially past and current human existence, is without objective meaning, purpose, comprehensible truth, or essential value.** Nihilists generally assert some or all of the following: **there is no reasonable proof of the existence of a higher ruler or creator, a "true morality" is unknown, and secular ethics are impossible; therefore, life has no truth, and no action is known to be preferable to any other.**

## Causation

- **Cause-and-effect relationships**
- **Causation v correlation**
- **What causes what, and what causes the cause, and what causes that cause, etc...**

## Determinism v. Fatalism

**Fatalism is the view that human deliberation and actions are pointless and ineffectual in determining events, because whatever will be will be.** Determinism is the philosophical proposition that **every event, including human cognition and action, is causally determined by an unbroken chain of prior occurrences.** No wholly random, spontaneous, mysterious, or miraculous events occur

What constitutes life?  
What makes a habitable world?

### Artificial intelligence

- ↪ How sentient are we comfortable allowing it to become?
- ↪ Is AI equals or subservient to humans?
- ↪ Is AI treated with dignity?
- ↪ Does AI have agency or is it a slave to its programming?

The plot design was based on the ideal of a universal super-consciousness that transcends space and time and in which all human life is connected. (this is a Hindu belief).

# QUESTIONS

If abandoning Earth, what criteria should be used to determine who will make the Ark?

Cooper says, “Mankind was born on earth, it was never meant to die here.”

- Could this be true?
- Should we be looking for other worlds out in the universe in an effort to perpetuate the human species?
- Is it morally permissible to colonize another planet? Is it morally obligatory?

Is it morally permissible for Amelia and her NASA team to colonize a foreign planet?

- And what about us? Do we in the real-world have the right to colonize Mars, moons, and foreign planets?
- How does manifest destiny thinking influence this?
- Would it matter if we received an invitation (or not) from ultra-advanced beings to colonize?

Off-world colonialization is an effort to avoid extinction. Is human extinction inevitable?

*Interstellar* emphasizes the importance of thinking “not as individuals but as a species” and that there’s an inevitability to human evolution. But what makes the human race more intrinsically valuable than other intelligent species that could eventually evolve on Edmunds’ planet?

# QUESTIONS

How would an off-world colony affect natural human evolution?

“Past, Present, Future is an illusion, as time exists all at once.” Explain.

Considerations for the new colony: What languages, cultures, and values would be taught to the colonists? What form of government, enforcement agencies, and military should be set up? Would they allow a free enterprise to exist with capitalism as their economic system? And how would the colonists claim property in this new world?

The ethics of terraforming another planet – the process of earth-shaping a planet and redesigning it for human habitation. Suppose that in the near future we could cause a greenhouse effect on Mars, thereby producing water, oxygen, and plant life.

- Would it be morally right to do such a thing?
- Wouldn't the terraforming contaminate existing microbial life? What gives us the right to alter the natural development and future of these life forms?

Imagine that the Curiosity Rover determines there is no life on Mars but that it contains the ingredients to support microbial life (something we now know is true given the Opportunity Rover's discovery that water flowed on Mars 4 billion years ago). So, the potential for life to naturally develop is there, and by terraforming the planet, we would eliminate that potential and interrupt the natural development.

- ❖ Under what circumstances is that an ethical thing to do? Would doing so be immoral?

COOPER

Tars kept the Endurance right where we needed her, but it took years longer than we anticipated ...

*Cooper puts both planets on screen - Dr Mann's ice world, and Edmunds' desert planet.*

COOPER

We don't have the fuel to visit both prospects. We have to choose.

ROMILLY

How? They're both promising. Edmunds' data was better, but Dr Mann is the one still transmitting.

BRAND

We've got no reason to suppose Edmunds' results would have soured. His world has key elements to sustain human life -

COOPER

As does Dr Mann's.

BRAND

Cooper, this is my field. And I really believe Edmunds' is the better prospect.

COOPER

Why?

BRAND

Gargantua, that's why.

Look at Miller's world - hydrocarbons, organics, yes. But no life. Sterile. We'll find the same thing on Dr Mann's.

ROMILLY

Because of the black hole?

BRAND

*Murphy's Law - whatever can happen will happen. Accident is the first building block of evolution - but when you're orbiting a black hole not enough can happen - it sucks in asteroids and comets, random events that would otherwise reach you. We need to go to further afield.*

COOPER

You once referred to Dr Mann as the 'best of us'.

BRAND

He's remarkable. We're only here because of him.

COOPER

And he's there on the ground sending an unambiguous message that we should go to that planet.

ROMILLY

Should we vote?

COOPER

If we're going to vote, there's something you need to know. Brand?

*She says nothing.*

COOPER

He has a right to know.

BRAND

That has nothing to do with it.

ROMILLY

What does?

COOPER

She's in love with Wolf Edmunds.

ROMILLY (to Brand)

Is that true?

BRAND

Yes. And that makes me want to follow my heart. But maybe we've spent too long trying to figure all this with theory -

COOPER

You're a scientist, Brand -

BRAND

I am. So listen to me when I tell you that love isn't something we invented - it's observable, powerful. Why shouldn't it mean something?

COOPER

It means social utility - child rearing, social bonding -

BRAND

*We love people who've died ... where's the social utility in that? Maybe it means more - something we can't understand, yet. Maybe it's some evidence, some artifact of higher dimensions that we can't consciously perceive. I'm drawn across the universe to someone I haven't seen for a decade, who I know is probably dead. Love is the one thing we're capable of perceiving that transcends dimensions of time and space. Maybe we should trust that, even if we can't yet understand it.*

BRAND

Cooper, yes - the tiniest possibility of seeing Wolf again excites me. But that doesn't mean I'm wrong.

COOPER

Honestly, Amelia ... it might.

*Romilly looks at Brand. It's clear she's lost.*

COOPER

Tars, set the course for Dr Mann.



*Interstellar* and Philosophy  
The Ethics of Space Colonization  
By Lance Belluomini

The highly anticipated Sci-Fi movie *Interstellar* opened worldwide on November 7<sup>th</sup>. I couldn't wait to experience the movie for myself on opening day. And I did, on the largest film format there is—70mm IMAX. I wasn't disappointed. If nothing else, *Interstellar* contains the most realistic space imagery ever seen in a film.

It was also packed with emotion. When Murph runs out of the farmhouse holding the watch Cooper had given her as he drove away, when Cooper watched 23 years of stored video messages after suffering time dilation—it was all so riveting. McConaughey, Chastain, Hathaway, and Foy all delivered top-notch performances and Hans Zimmer's amazing score added emotional depth to each scene. (I can't get that inspiring Cornfield Chase music out of my head.)

It didn't surpass *Inception* in my book of film greats, but *Interstellar* is still a breathtaking film. I'm sure I'll appreciate it even more with repeat viewings and a deeper understanding of the science behind the film. I'm looking forward to reading Kip Thorne's new book: *The Science of Interstellar*.

### ***Interstellar* Raises Questions**

But while Thorne's book will clarify the scientific underpinnings of the film, it won't answer a slew of other questions that I had walking out of the theater. For example, how did the ultra-advanced bulk beings first survive to make a fifth dimension Tesseract given that there would have been no Tesseract to save them in the first place? Who put the first wormhole there for them? And why didn't the bulk beings connect the wormhole to a normal solar system with a sun (like ours) that contains a habitable planet (like Earth)? Why connect them to a spinning black hole system that contains 12 mostly uninhabitable planets with harsh environments? Fortunately, I found a satisfactory answer in a certain view of time travel via David Kyle Johnson's "[\*Interstellar\*, Causal Loops and Saving Humanity](#)".

But this still left bigger questions to ponder. Consider the marketing slogan for the film. Cooper says, "Mankind was born on earth, it was never meant to die here." Could this be true? Should we be looking for other worlds out in the universe in an effort to perpetuate the human species? Is it morally permissible to colonize another planet? Is it morally obligatory?

In the film, NASA and the brave men and women of the Endurance and Lazarus missions are confronted with the opportunity to start a new world. They just need to find a habitable planet. Near the end, we come to learn that of the three potentially habitable planets on the Endurance mission, it is Edmunds' planet that is most promising. In the final scene of the movie, we see Amelia on Edmunds' planet with her base set up, implying that this is where the colonization will take place. This is where Amelia will grow her 5000 genetically diverse fertilized eggs, thereby saving the human species from extinction and fulfilling Plan B.

But is it morally permissible for Amelia and her NASA team to colonize this foreign planet? And what about us? Do we in the real-world have the right to colonize Mars, moons, and foreign planets? If you're on the fence, would it matter if we received an invitation from ultra-advanced beings to colonize? Professor Brand's NASA team receives just this—an invitation from the mysterious bulk beings to travel through a wormhole to the spinning black hole system Gargantua. But does this invitation justify the space exploration and colonization they carry out? While receiving an invitation would further fuel our desire to explore and colonize, we'd need to consider the ethical implications before committing to such an endeavor.

## **Terraforming and Intrinsic Value**

First, there is the ethics of terraforming another planet—the process of earth-shaping a planet and redesigning it for human habitation. Suppose that in the near future we could cause a greenhouse effect on Mars through the use of C-class asteroid material, thereby producing water, oxygen, and plant life. Would it be morally right to do such a thing? Maybe, but then imagine that NASA’s Curiosity Rover on Mars eventually discovers microbial life that has gone unnoticed for decades. Wouldn’t the terraforming contaminate this existing microbial life? What gives us the right to alter the natural development and future of these life forms?

Conversely, imagine that the Curiosity Rover determines there is no life on Mars but that it contains the ingredients to support microbial life (something we now know is true given the Opportunity Rover’s recent discovery that water flowed on Mars 4 billion years ago). So the potential for life to naturally develop is there, and by terraforming the planet, we would eliminate that potential and interrupt the natural development. Under what circumstances is that an ethical thing to do?

*Interstellar* forces this question upon us. The movie is set in the not-too-distant future where overpopulation and crop blight have brought humanity to the edge of extinction. The only option is to leave Earth, find a home for the remaining people on Earth, and set up a colony to save our species. But, given that Amelia was breathing its air at the end of the film, Edmunds’ planet likely contains microbial life, and possibly even plant and animal life. But what gives Amelia the right to override the natural process of life on Edmunds’ planet? After all, in *Star Trek*, their highest law is the Prime Directive—to not interfere with a species’ natural development. This includes even microbial life; before terraforming a planet, they must ensure not even a single microbe exists. In *Interstellar*, the humans are blatantly ignoring this rule. I know *Star Trek* and *Interstellar* are in different fictional universes—but by ignoring such concerns, could the heroes of *Interstellar* be doing something monumentally immoral?

Not if you think that the human race is intrinsically valuable. In fact, if the human race is intrinsically valuable, then colonization is obligatory. Logically we ought to produce as many humans as we can. If the human race is intrinsically valuable in itself, we all should recognize our duty to create human life everywhere that we can (including in outer space).

At first glance, given the climate disaster ravaging the Earth in *Interstellar*, the members of the Endurance and Lazarus missions seem to be justified in their endeavor of starting a colony and creating as many genetically diverse humans as possible. They obviously believe the human race is intrinsically valuable, and that they therefore have a duty to generate more human life and save the human race from extinction.

Similarly, in the real-world, many of us believe the human race is intrinsically valuable. Given the overcrowding and environmental issues we continue to face here on Earth, perhaps we should argue that more funding be secured for space exploration and for terraforming on Mars, Titan, and possibly small planets in other alien solar systems. Perhaps there could someday be “habitable worlds right within our reach.” Some even think we could conceivably engineer atmospheres, ecosystems, and artificially encase small planets in protective shells to simulate Earth-like environments.

## **Reproduction, Cosmic Radiation, and Health Concerns**

On the other hand... Clearly, the overpopulation and environmental issues on Earth, and those seen in *Interstellar*, are a direct result of reproduction—generating too much human life. The more people there are, the less natural environment there is, and the fewer resources there are. This certainly seems to cast doubt on the belief that our species is intrinsically valuable and that we therefore have

a duty to create more humans. In *Interstellar*, who's to say that the settlement on Edmunds' planet wouldn't in time be faced with the same population control problem that got them there in the first place? In fact, this seems likely.

Even if reproduction were a non-issue, there are other concerns. I keep thinking about the 5000 fertilized eggs weighing in at just under 900 kilos that Amelia brought to Edmunds' planet. It's unrealistic to think frozen embryos could survive intact on any interstellar mission. In the movie, it takes them two years just to reach Saturn and the wormhole. But it's not just time. Along the way, the fertilized eggs would be exposed to harmful cosmic rays (high-energy radiation) that would probably damage all the embryonic DNA. The astronauts would also suffer from the radiation. Therefore, wouldn't the attempt to colonize another planet be futile? Cooper's remark to Amelia on Miller's planet comes to mind, "We are not prepared for this!"

Let's imagine astronauts and embryos could survive an interstellar voyage. Still, there would be health concerns. For instance, babies *in utero* acquire a properly functioning immune system from the gut flora of their mothers. But this wouldn't be the case for the 5000 embryos aboard the Endurance. They wouldn't acquire the proper gut bacteria needed to support a developing immune system. And there are other considerations for the new colony: What languages, cultures, and values would be taught to the colonists? What form of government, enforcement agencies, and military should be set up? Would they allow a free enterprise to exist with capitalism as their economic system? And how would the colonists claim property in this new world?

### **Colonialism, Environmental Destruction, and Survival**

The topic of claiming property raises another issue. Consider the English Colonialism that existed a few centuries ago. Was it morally permissible for foreigners to settle on lands that were being occupied by the indigenous nomadic people of this country? The influential political philosopher John Locke (1632 – 1704) actually defended English colonialism in America in his *Second Treatise of Government*. Locke believed that if you cultivate a piece of land and use it productively through the labor of your body, you thereby make the land your individual property. Since the indigenous nomads didn't claim their lands by adding their labor to it (for instance, they didn't build homes), Locke didn't think they could properly be regarded as property owners over the lands they roamed. (This seems a good example of how bias can motivate philosophical conclusions, even in the best philosophers.)

In *Interstellar*, the Endurance and Lazarus teams are not unlike the colonialists. Thanks to the bulk beings, they have an opportunity to start a new world. While there are likely no indigenous nomadic people on Edmunds' planet, there's a high probability that native life forms exist, possibly millions of microbial and plant species. Does the land belong to those life forms even if they can't lay claim to the land? Locke would say no. Those life forms can't make the land their property because they can't add their labor to the land. So perhaps it's morally permissible for Amelia to seize their land and create settlements. However, those that defend the Star Trekkian Prime Directive rule would disagree. Seizing their land would certainly affect those other life forms that are evolving on the planet. But isn't the survival of the human race paramount? Most of us would answer "yes." *Interstellar* emphasizes the importance of thinking "not as individuals but as a species" and that there's an inevitability to human evolution. But what makes the human race more intrinsically valuable than other intelligent species that could eventually evolve on Edmunds' planet? It doesn't seem that humans have a right to supplant that planet's life prospects in favor of their own. Doesn't the potential intelligent species there deserve a shot at being better than us? Further, maybe the survival of the human race isn't paramount. Perhaps, the human species has lost the right to survive.

Consider what we've done as a species. Industry, agriculture, and vehicle emissions have caused air pollution. We've allowed bacteria and toxic substances into our drinking water. We've polluted our ocean waters and destroyed rainforests. Scientists agree that the

greenhouse gases we've produced have caused global warming. We continue to put toxic carcinogenic material and different species of chemicals into landfills which harm people and the environment. And it's overpopulation that is responsible for many of our environmental problems given the non-renewable resources needed to support population growth. If we really do one day render our planet uninhabitable, wouldn't we have lost our right to survive—and thus the right to colonize new planets?

For those still unconvinced, what's to prevent these environmental problems on Earth we've caused from following us into outer space? After all, human history has a tendency of repeating itself. In *Interstellar*, even if Amelia's NASA team has a well thought out prevention plan to protect their new biosphere, it's hard to believe her colony could avoid the same mistakes made on Earth. Edmund's planet wouldn't change mankind's tendency to overpopulate, destroy and pollute. Think what life would be like there in 10,000 or so years—when the conditions that drove us away from Earth are a distant memory.

### **Human Extinction**

But I have to keep reminding myself that the situation on Earth in *Interstellar* is grave! Humans didn't run out of televisions. They ran out of food. The crop blight is putting too much nitrogen into the air which is decreasing oxygen levels. Consequently, the remaining humans will eventually die from suffocation and starvation. This fictional situation attempts to morally justify space exploration and colonization out of necessity. Professor Brand tells Cooper, "...and your daughter's generation will be the last to survive on Earth." But aren't they overlooking that what's inevitable is our extinction. Starting an artificial space colony on a foreign planet where humans would continue to evolve doesn't seem inevitable. We've made a mess of Earth, and instead of fleeing it, perhaps we should just live with the consequences. And extinction seems to be the inevitable outcome of our environmental mistakes. Even if we never made a mess of our environment, Earth will eventually be destroyed by the red giant phase of the Sun. Thus, might we argue that the human race just has to eventually come to an end like the dinosaurs?

Of course, many of us are not prepared to give up our right to survive by carelessly killing ourselves. There's no doubt the human instinct to survive is a powerful drive. But perhaps the extinction of the human race is not that big of a deal in the vast scheme of the universe? Besides, even if we could continue to survive and evolve somewhere in outer space, wouldn't we evolve into something else? So, perhaps, no matter what we do, our extinction is inevitable.

### **Final Thoughts**

Are we meant to colonize in space or not? Professor Brand says to Cooper, "We're not *meant* to save the world, we're *meant* to leave it." But what does he mean by "meant?" If we believe in God, aren't we meant by God to remain caretakers of the Earth? More likely, Professor Brand means we're meant by *nature* or by the *universe* to be pioneers and ensure humans continue to evolve.

But is this right? I believe it's difficult to make a case for space colonization. First, it's not realistic. Humans wouldn't be able to survive the cosmic radiation on an interstellar journey. It would therefore be a futile attempt. Second, if astronauts and embryos could survive an interstellar journey, we need to consider the harm colonization would bring about to us and other native species. Lastly, given what we've done to Earth, we seem to have lost our right to survive. Given all the ethical considerations discussed, we certainly can't conclude that colonizing on other planets would serve the greater good of the universe. Perhaps we should just live (or die) with the consequences of our mistakes—or perhaps, we should be trying to correct them. Maybe it's not too late to earn that right back. This doesn't mean we can't explore space, but perhaps we should be thinking about how we might improve the conditions on Earth first. We can exist beyond the Earth. But this calls us to question whether we really can—and whether we have the right to do so?

Instellar trailer 1

<https://www.youtube.com/watch?v=zSWdZVtXT7E> (2:54)

Interstellar Trailer 3

<https://www.youtube.com/watch?v=ePbKGoIGAXY> (2:50)

Interstellar Trailer 4

<https://www.youtube.com/watch?v=LY19rHKAaAg> (2:44)

Interstellar ending explained

<https://www.youtube.com/watch?v=j3DuONZb3Ik> (13:44)

Time dilation and gravitational redshift

<https://www.youtube.com/watch?v=JqKa6qyVYgg> (10:17; only show to 8:30)

General Relativity explained

<https://www.youtube.com/watch?v=tzQC3uYL67U> (14:03)

Things in Interstellar You Notice After Watching More Than Once

<https://www.youtube.com/watch?v=RpTzNl2sgb8> (11:48)

Written by a Philosophy professor, U of Tennessee, Chattanooga

*Interstellar* is deeply philosophical in that it prompts not merely [the question of the meaning of my life, your life, or an individual's life, but the question of the meaning of the life of the human race as a whole](#). Among all the time-bending, mind-rending wildness, [the story relies fundamentally on the continuation of individual humans' genes, projects, and memories](#), as with Cooper and Murphy as well as John and Brand.

There is also a theory put forward by Cooper that the beings who made the tesseract at the end of the film are “us from the future” – a theory that provides a larger-scale reflection of the father-daughter relationships. Parents are continued by their children (although general relativity sees to it that Cooper's daughter is instead continued by him); human beings in the present are also continued by human descendants, presumably in the very far future (I don't see us building tesseracts inside black holes with parts from Radio Shack or even from our fanciest space programs anytime soon).

So, we survive, apparently for a very long time. The idea that the survival of the human race is a desirable and meaningful state of affairs seems to be a fundamental philosophical presupposition of *Interstellar*. For individuals [haunted by the recognition of our own mortality](#), this is an extremely powerful idea that provides much of *Interstellar*'s emotional weight. I am reminded of *Diotima's* speech in Plato's *Symposium* on the [innate human desire for immortality through children and/or “spiritual” things like works of art, ideas, and so forth](#) (or as I say when I teach the *Symposium*, the desire for real babies and soul babies).

But will humanity survive forever? [Would we want to?](#)

Some reflection on the nature of time and the universe suggests that we will not, in fact, survive forever. Even if we manage to survive war, famine, asteroids, disease, alien invasion, black holes, etc., remember that [most species that have existed on Earth are extinct](#). [Our descendants will eventually evolve into something non-human](#). Furthermore, even if we escape our solar system and even if we accept our non-human descendants as our own, the universe itself may expand and suffer heat death, it might contract in a Big Crunch, or ... who knows? Only time will tell. Or will it? With the possibilities suggested by the tesseract, maybe [our very notions of past, present, future, permanent, and impermanent are fundamentally mistaken](#), but this is so speculative I can't, at this time, form anything like a coherent question to ask about it.

[I wonder if we would do well to accept the impermanence of the human race](#) as well. Contemporary philosopher Susan Wolf has suggested that [philosophical worries about absurdity from Albert Camus arise from an unhealthy preoccupation with permanence at the individual level](#). It may be that *Interstellar* encourages an unhealthy obsession with permanence at the level of our species.