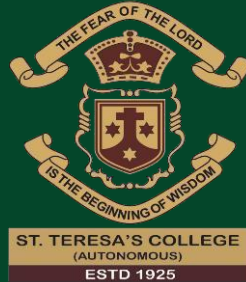# LANGUAGE AND PERCEPTION IN *ARRIVAL*:
A POSTHUMAN INQUIRY

Project submitted to St. Teresa's College (Autonomous) in partial fulfilment of the requirement for the degree of BACHELOR OF ARTS in English Language and Literature

By

RIYA P

Register No. AB21ENG029

III BA English Literature

St. Teresa's College

Ernakulam

Kochi – 682 011

Kerala

Supervisor

DR. JEENA ANN JOSEPH

Assistant Professor

Department of English
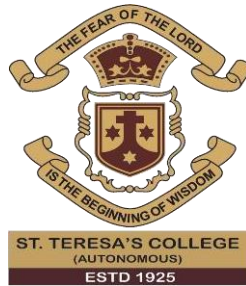
St. Teresa's College

Ernakulam

Kochi – 682 011

Kerala

March 2024

LANGUAGE AND PERCEPTION IN *ARRIVAL*:

A POSTHUMAN INQUIRY

Project submitted to St. Teresa's College (Autonomous) in partial fulfilment of the requirement for the degree of BACHELOR OF ARTS in English Language and Literature

By

RIYA P

Register No. AB21ENG029

III BA English Literature

St. Teresa's College

Ernakulam

Kochi – 682 011

Kerala

Supervisor

DR. JEENA ANN JOSEPH

Assistant Professor

Department of English

St. Teresa's College Ernakulam

Kochi – 682 011

Kerala

March 2024

ST.TERESA'S COLLEGE (AUTONOMOUS) ERNAKULAM

Certificate of Plagiarism Check for Dissertation

Author Name	RIYA P
Course of Study	B A English Language & Literature
Name of Guide	Dr JEENA ANN JOSEPH
Department	English & Centre For Research
Acceptable Maximum Limit	20%
Submitted By	library@teresas.ac.in
Paper Title	LANGUAGE AND PERCEPTION IN ARRIVAL: A POSTHUMAN INQUIRY
Similarity	2% AI 14%
Paper ID	1432856
Submission Date	2024-02-14 15:42:51

Signature of Student

Signature of Guide

Checked By
College Librarian

DECLARATION

I hereby declare that this project titled "Language and Perception in *Arrival*: A Posthuman Inquiry" is the record of bona fide work done by me under the guidance and supervision of Dr. Jeena Ann Joseph, Assistant Professor, Department of English.

Riya P

Register No. AB21ENG029

III BA English Literature

St.Teresa's College(Autonomous)

Ernakulam

Ernakulam

March 2024

CERTIFICATE

I hereby certify that this project entitled "Language and Perception in *Arrival*: A Posthuman Inquiry" by Riya P is a record of bona fide work carried out by her under my supervision and guidance.

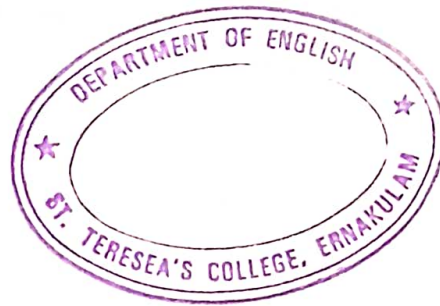Dr. Jeena Ann Joseph.

Assistant Professor

Department of English

Ernakulam

St. Teresa's College (Autonomous)

March 2024

Ernakulam

ACKNOWLEDGEMENT

I take this opportunity to thank God Almighty for showering his abundant blessings and grace upon me during the course of my project.

I would like to place on record my sincere gratitude to Rev Dr. Sr. Vinitha (CSST), Provincial Superior and Manager, St Teresa's College (Autonomous), Ernakulam and Dr. Alphonsa Vijaya Joseph, Principal, St Teresa's College (Autonomous), Ernakulam for their continued support throughout the course of my study in this institution.

I would like to express my heartfelt gratitude and appreciation to my supervisor Dr. Jeena Ann Joseph for guiding my thoughts in the right direction and for helping me to express them in the best possible manner.

I extend my sincere gratitude to the Head of the Department, Dr. Preeti Kumar and all the other teachers of the department without whose guidance this project could never have been completed.

Riya P

CONTENTS

Introduction

Language has great significance in the very fabric of human existence. It shapes the foundation of civilizations by acting as a medium for cultural expression as well as a communication channel. Human beings believe that their languages are the best because they represent the highest level of linguistic development. But this long-held belief is being called into question by the rise of posthumanist viewpoints, which encourage us to reevaluate the hierarchical structure of language and its implications for inclusivity in our dynamic global society.

The advent of sophisticated language models such as ChatGPT presents significant ethical dilemmas about their influence on linguistic diversity and social structures. These models, which were once viewed with suspicion and anxiety, have spurred discussions regarding their dependability, moral ramifications, and effects on human employment and expertise. People are urged to carefully consider the ethical ramifications of using artificial intelligence in language areas as they wrestle with various questions. The changing perceptions of these models are a reflection of broader social worries about the ethical advancement and application of AI, as well as the ways in which technology interacts with issues of privacy, bias, and human agency.

The pursuit of inclusion with regard to languages, whether they are human or alien, basically acts as a prism through which to view the intricacies of human civilization and the ever-changing dynamics of communication and cross-cultural interchange. Today, one faces challenges to confront our prejudices, accept the unknown, and imagine a time where language is valued as a bridge that unites rather than separates as negotiate the complex web of linguistic diversity.

The movie *Arrival* is an American science fiction movie directed by Denis Villeneuve and released in 2016 based on the short story "The story of your life" by Ted Chiang. The film begins with the narration of Dr Louise Banks, a linguist struggling with personal grief following the loss of her daughter, Hannah, to cancer. One day, as Louise lectures at a university, the world witnesses an extraordinary event – twelve colossal extraterrestrial spacecraft appears in various parts of the planet. The U.S. Army enlists Louise, alongside physicist Ian Donnelly, to unravel the mystery of the aliens' arrival and decipher their language. Transported to a military camp in Montana, the duo encounters the mysterious Heptapods – seven-limbed extraterrestrial beings named Abbott and Costello. Their communication since then alters the linguist's very concept of language and its influence.

This project "Language and Perception in *Arrival*: A Posthuman Inquiry" tries to question the assumed superiority of human language as depicted in the film *Arrival*. The complexities of language diversity as portrayed in the movie is also foregrounded. Chapter one- "The Posthuman Turn" outlines the possibilities of transcending limitations and attempts to rethink what it means to be human. The chapter thereby captures how a non-anthropocentric language paradigm becomes the focal point in the speculative fiction *Arrival*. It also delves into the idea of linguistic relativity theory discussed in Sapir-Whorf hypothesis.

Chapter two- "Language: A Bridge to Future" portrays the fragility of human communication through the characters in the movie. It offers a thorough examination of the movie's narrative structure, character development, and thematic complexity. The chapter prompts reflection on the importance of cooperation, open mindedness and a shared understanding to navigate the complexities of communication and avoid catastrophic misunderstandings.

Chapter three – "The Dual Nature of Posthumanism", critically analyses the post humanist views on language and cognition that are shown in the movie, placing particular emphasis on distributed cognition, extended mind theory, and inclusivity in communication. It also shows the duality of posthumanism in *Arrival* that evokes both pleasure and terror through different characters in the movie.

Chapter 1

The Posthuman Turn

In the era of AI/ChatGPT taking charge, where machines assume an unprecedented role in shaping our world, the significance of communication and the exchange of ideas becomes paramount. Marking a change from conventional humanism, cinematic narratives in speculative fiction becomes really important as the human encounters with extraterrestrials are being explored through them. These narratives provide a rich background to detect the potential of non-verbal communication by exploring the complex relation among language, thought and communication. These are possible through the limitless opportunities depicted through the posthuman experiences in the movie.

Posthumanism is a mode of thinking that considers the interconnectedness of human, nonhuman, and technological realms. It has become more popular in the late 20th and early 21st centuries, especially during the rise of environmental movements and ecological consciousness which questions the humankind's role in determining human future. Posthumanism challenges the established nature-culture binary, offering a perspective that explores how everything is interconnected. The attempt to decentralize the human experience is one of the main contributions of posthumanist theory. It highlights the connections, interdependencies and co-evolution of all matter, including the effects that technology and humans have on one another as well as to all other creatures. It explores various topics such the possibility of human enhancement, the development of artificial intelligence, and the moral implications of these advancements. The study covers its consequences on people, law, personhood, and society. Redefining the relationship between people and the natural world, posthumanist thought examines ideas such as animality, vegetal thinking, and the complex relationships that humans have with other living forms. It also treats plants and animals as

companions. This viewpoint has given rise to several research that clarify the intricate relationships present in our globalized society. Posthumanism questions accepted ideas about what it means to be human, the idea of man and explores the improved forms of existence. It also discusses about Anthropocene, materialism and distributed cognition

Anthropocentrism is the belief that human beings are the central or primary entity on the planet. According to MH Abrams and Geoffrey Galt Harpham in the book *A Glossary of Literary Terms*

> . . . it is claimed that the reigning religions and philosophies of Western civilization are deeply anthropocentric; that is they are oriented to the interests of human beings, who are viewed as opposed to and superior to nature, and as free to exploit natural resources and animal species for their own purposes…. (99)

One of the fields that faces significant questions within the framework of posthumanism is applied linguistics which reevaluate the perceptions of language, humans, objects, and agency. It asks to break the boundaries one has imposed between humans and other entities, challenging the fixed divisions between interiority and exteriority. By breaking down these divisions, it promotes the idea that subjects, language, and cognition are dispersed among individuals, places and objects. It also questions the conventional linguistic beliefs regarding the arbitrary nature of linguistic signs, word meanings, grammar rules, communication and the requirement of mutual language in communication. Since in any language it is a man who is the center of the linguistic picture of the world, it becomes important to assess the shift of language from the anthropocentric perspective ingrained in our society.

Anthropocene refers to the most recent period in earth's history during which human activities began to significantly affect the planet's ecosystems. Meanwhile, anthropocentrism

is the idea that human beings are the central or primary element of the planet. The way humans see the world influences how language is used. Posthumanist applied linguistics challenges the idea that language is separate from other ways of communicating. It suggests that language is just one way among many to express ideas. Unlike animal communication, human communication isn't tied to a specific language. Posthumanist thinking recognizes that language involves more than just what happens in our brain, it includes how language is used and learned in broader contexts.

The concept of alien invasion can be seen in speculative fiction, a broad genre that includes science fiction, fantasy, horror, superhero, alternate history, utopian and dystopian, and supernatural fiction. It frequently combines these genres, as seen in science fantasy, and explores the idea of extraterrestrial beings and their invasion. It purposefully deviates from faithful reproduction of everyday reality or realism. Rather, it opens up fantastical, futuristic, and supernatural worlds. It offers a forum for examining atypical and provocative situations. The issue of extraterrestrial life takes center stage among many of its subjects. Speculative fiction becomes a rich field for exploring the potential of interactions with extraterrestrial life as it pushes the readers to explore beyond the boundaries of human existence.

The influence of language on ones thought becomes important when we take into account the language of humans and other entities. Human communication is different from all other forms of communication, be it human-animal or human-alien interactions in speculative fiction.

Meanwhile in the book *A Glossary of Literary Terms*, M H Abrams and Geoffrey Galt Harpham define science fiction and fantasy as

> These terms encompass novels and short stories that represent an imagined reality that is radically different in its nature and functioning from the world of our ordinary experience. Often the setting is another planet, or this earth projected into the future, or an imagined parallel universe. The two terms are not sharply discriminated, but by and large the term science fiction is applied to those narratives in which-unlike in pure fantasy-an explicit attempt is made to render plausible the fictional world by reference to known or imagined scientific principles, or to a projected advance in technology, or to a drastic change in the organization of society. (355)

Human language is characterized by its complexity, reflecting arbitrariness, duality of patterning, productivity, displacement, and cultural transmission. In contrast, animal communication tends to be more limited in complexity, relying on fixed, instinctive signals for specific situations. It lacks the depth of symbolic representation, abstract thought, and the ability to generate novel expressions, often being tied to immediate needs and instinctual responses, lacking the flexibility found in human language.

Comparing human language with that of aliens in speculative fiction, a notable distinction lies in the relationship between spoken and written forms. In human languages, spoken and written forms are typically the same, differing only in delivery. For instance, English is spoken with sounds and represented through letters on the page. However, with aliens like the Heptapods, there is no inherent connection between spoken and written language. Heptapods are the seven limbed alien creatures used in Ted Chiang's short story, "Story of your life'' (1998) as well as its later film adaptation *Arrival*. In human spoken language, word order holds significance, influencing its meaning. When humans write, they

maintain this structure to preserve meaning. However, Heptapods do not need to uphold such order in writing, as their logograms represent entire concepts, rendering sequence irrelevant. In the film *Arrival* the Heptapods are depicted as extraterrestrial beings with linguistic and perceptual abilities that suggests they are from a higher dimensional reality, possibly a 4-D world.

A4-D world, also known as a four-dimensional space-time, is a mathematical construct used in theoretical physics and mathematics to describe a reality with four spatial dimensions. In such a world, entities would have additional spatial dimensions beyond the familiar length, width, and height, as well as one temporal dimension representing time. Four-dimensional beings, often depicted in speculative fiction and theoretical discussions, are hypothetical entities that exist in a space-time continuum with four spatial dimensions. These beings would possess attributes and abilities beyond our three-dimensional perception, enabling them to interact with and navigate a higher-dimensional reality. The exploration of dimensions beyond the conventional three-dimensional space and linear time in speculative fiction opens the door to the possibility of encountering beings with modes of communication that transcend our understanding of reality. In these speculative scenarios, sentient beings may communicate through extradimensional means, manipulating space-time or accessing higher dimensions to convey information and ideas. Such modes of communication could transcend the limitations of linear language and offer insights into the nature of existence itself, challenging fundamental assumptions about the nature of reality and the possibilities of communication in the cosmos.

The Sapir-Whorf hypothesis, also known as the linguistic relativity hypothesis, proposes that the language one speaks shapes and influences one's perception of reality. The Sapir-Whorf Hypothesis is defined by the American anthologist and linguist E. Sapir in his

article, "The Status of Linguistics as a science'' (1929) and also elaborated upon by B.L. Whorf in his article "Science and Linguistics" (1940). It goes beyond mere linguistic diversity and suggests that the grammatical and verbal structure of a person's language plays a pivotal role in shaping their thoughts and worldview. It contends that language is not merely a tool for communication but a cognitive framework that either determines or significantly influences one's thoughts. According to this theory, people experience the world based on the structure of their language, and linguistic categories play a crucial role in shaping and limiting cognitive processes. The hypothesis asserts that differences in language can have profound effects on thought, perception, and behavior, leading speakers of different languages to think and act differently for instance, the lack of precise one-to-one translations for certain words across languages underscores the unique nuances and perspectives embedded in each linguistic system. This subtle yet impactful variation in language can result in significant consequences, highlighting the intricate relationship between language and cognition.

In the context of posthumanism, exploring the Sapir-Whorf hypothesis offers a lens through which to examine the ways in which language, thought, and perception intertwine. By delving into the implications of linguistic relativity, one can navigate the intricate connections between human and non-human entities. The question of inclusivity towards the language of all entities becomes pivotal here, contributing to broader inquiries about language, practice, materiality, and agency. A reshaped posthumanist applied linguistics has the opportunity to reconsider these relations, fostering a way of thinking that engages with the notion of practice and contributes to understanding language in relation to people, objects, and place. The following chapter will unravel the interconnected threads of speculative fiction along with its engagement with the concept of extraterrestrial beings. It also explores

how this genre contributes to our understanding of Sapir-Whorf hypothesis and answer how inclusive human beings are to other entities and their much-developed language.

There are various theoretical underpinnings of posthumanist perspectives such as distributed cognition, extended mind theory, on – anthropocentric language paradigms etc. According to N. Katherine Hayles in *How We Became Posthuman: Virtual Bodies in Cybernetics, Literature, and Informatics* "Like cognition, decision making is distributed between human and nonhuman agent" (289). Distributed cognition theory suggests that thinking isn't confined to one's head. Instead, it includes collaboration with others and using one's surroundings. Thoughts are not just in the brain but also in the things and places one interacts with. This challenges traditional views on thinking, emphasizing that minds are not limited to one's head but are intertwined with the world. The theory explores how people collectively solve problems and connect their thoughts to the environment, which is different from the notion that minds and language are solely within one's head, as proposed by the extended mind theory.

The extended mind theory states that the boundaries between mind, body, and environment are unclear, emphasizing the influence of external resources in shaping cognitive activities. In speculative fiction about aliens and their languages, the extended mind theory can be seen in various ways. For example, alien species might naturally blend external objects into their thought process, erasing the distinction between internal and external cognition. Their languages could also incorporate elements from their environment, showing a strong bond between their minds and surroundings. Such fiction explores how aliens communicate and understand the world in unique ways, which is consistent with the idea of thinking outside of human comprehension. The three main tenets of the extended mind theory are as follows: thought transcends individual brains, external factors influence thought

processes, and the distinction between the mind, body, and environment becomes blurred in extended cognition.

Non-anthropocentric language paradigms challenge the notion of human language as inherently superior and advocate for a more inclusive approach to linguistic expression. These paradigms recognize the diversity of communication systems across different species and emphasize the need to transcend human-centric limitations in understanding linguistic expression. One movement that is closely related to non-anthropocentrism is posthumanism. According to Tisha Hupkes, in her article "Non-anthropocentric Design Thinking",

> …all species are entangled and therefore one whole, rather than separate entities. Posthumanism considers it necessary to be attentive to this entanglement and realize that to take care of ourselves we need to take care of other species and the overall larger system, since we are one…. (2)

Posthumanism aims not only to decenter the human experience but to discard the concept of a center entirely. This movement challenges binary distinctions such as human versus nonhuman, emphasizing the interconnectedness of all species. The importance of considering different senses of times among human and other species are also discussed here. That is, human timeframes differ from those of other species. Achieving non-anthropocentrism involves blurring the binaries and incorporating different perspectives in order to make sure the species' entanglement (2). However, in an environment dominated by anthropocentric perspectives, promoting this understanding and relationship with the world requires huge effort. The key principles of non-anthropocentric language paradigms include seeking for an inclusive approach to linguistic expression, being aware of the diverse

communication systems among various species and giving importance to overcome human-centric limitations in understanding linguistic expression.

Other implications of posthumanism can also be referred from N. Katherine Hayles book *How we Became Posthuman: Virtual Bodies in Cybernetics, Literature, and Informatics*. It emphasizes on the posthuman's inherent duality which evokes both terror and pleasure. The Terror comes from the potential extinction of humans by intelligent machines. It simply arises from the dystopian visions of humans being surpassed or even eradicated by these advanced technologies. Meanwhile the pleasure comes from the possibilities of transcending limitations and rethinking what it means to be human as it also put in certain exhilarating prospect of getting out of the old boxes and unlocking new ways of thinking (283-285). This exhilaration stems from the prospect of breaking free from traditional constraints and embracing new ways of understanding oneself and one's relationship with technology.

Chapter 2

Language: A Bridge to Future

The film *Arrival* (2016) directed by Denis Villeneuve falls within the realm of speculative fiction, a genre characterized by imaginative narratives diverging from ordinary reality to explore various "what if" scenarios involving supernatural elements, futuristic technology, and alternate realities. *Arrival* exemplifies speculative fiction by immersing viewers in a narrative revolving around the arrival of extraterrestrial beings, introducing a world filled with intricate written language and enigmatic creatures- the Heptapods named Abbott and Costello. The storyline, delving into themes of communication, time perception, and personal relationships, skillfully blends elements of science fiction, drama, and linguistics, thereby blurring genre boundaries.

The film explores the importance of language and communication and poignantly shows how it may be used to bridge gaps between different civilizations and solve cosmic mysteries. The protagonist, Louise, encounters the constraints of human communication and the limitless possibilities of alternate linguistic forms as she digs into the mysterious language of extraterrestrial beings. This filmic voyage provides an opportunity to reflect on the difficulties of linguistic inclusion in a world where linguistic diversity is not limited by geographical borders.

Building on this cinematic narrative, the genre of speculative fiction provides a rich environment for imagining situations in which languages of previously unheard-of complexity converge with human society. When someone looks out into the hypothetical horizon, one is faced with a lot of inquiries regarding the inclusion of these languages in the complex web of human existence. In what ways might languages beyond the reach of human intelligence be introduced into human societies? and how would human beings react to it?

What difficulties and complexity may one encounter when negotiating the language diversity on a cosmic scale?

As Louise begins to decipher the complex written language of the Heptapods, she is shocked by the sudden exposure to a completely different language consisting of circular symbols. She discovers a profound connection between the symbols and her own subconscious visions of a mysterious little girl.

Fig 1: The circular symbols in the alien communication (*Arrival 0:48:13*)

The plot thickens as Louise seeks to understand the aliens' purpose. The aliens' first reaction caused fear and resistance among the states because they felt threatened by the word 'weapon', which was translated from the aliens' language. But Louise objects to this meaning, offering a more acceptable substitute such as 'tool' or 'technology'. Amidst this diplomatic turmoil, rogue soldiers jeopardize the mission by planting explosives in the spacecraft. Louise and Ian return to the spaceship, unaware of the impending peril, where the aliens deliver a convoluted message. Abbott gives itself up to protect them from the subsequent explosion, knocking Ian and Louise down cold. As they awaken in the military camp preparing for evacuation, the spacecraft elevates higher above the ground. Ian deciphers

that the circular symbols pertain to the concept of time, representing one-twelfth of a larger 'gift'

The Heptapods desired global cooperation but international tensions were building concurrently, especially because China is preparing a military attack. Louise quickly returns to the spaceship and speaks with Costello, the last living Heptapod. With a language that modifies perception of time, the aliens came down to earth to share this revolutionary 'weapon' which is their language. Louise is shocked as she realizes that the mysterious vision of the girl she has been seeing since the encounter with the Heptapods is the vision of her future daughter, and the language helped her see the future. In the midst of a global crisis, Louise envisions a future United Nations reception where she persuades Chinese General Shang to suspend the attack, citing his wife's dying words. Back in the present, armed with this knowledge, Louise averts disaster by convincing Shang through a phone call. The film concludes with Louise reflecting on her choices. Despite foreseeing the painful departure of Ian, she accepts the inevitable difficulties of life. Ian confesses his love, and the narrative ends with Louise foreseeing their future, including the birth of their daughter Hannah. *Arrival* stands as an intricately woven exploration of language, time, and the profound impact of human choices on destiny.

The movie also serves as a profound exploration of posthumanism, which challenges anthropocentrism—the belief in human superiority as the central entities in the Universe. Through the character of linguist Hannah who attempts to decipher the complex circular symbols constituting the Heptapods language, the film subtly critiques anthropocentrism, revealing a mode of communication that surpasses traditional linguistic boundaries. This departure from anthropocentrism aligns with posthumanistic ideals, inviting audiences to reconsider assumptions about language, intelligence, and interconnectedness. The Heptapods'

language serves as a metaphorical bridge, transcending human-centric viewpoints, prompting reflection on whether our understanding of language is inclusive enough to encompass different forms of communication beyond terrestrial experiences. The narrative further explores the consequences of anthropocentrism through global reactions to the Heptapods marked by fear, misunderstanding, and immediate plans for aggression, highlighting the challenges humanity faces in overcoming deeply rooted perspectives. Ultimately, *Arrival* encourages viewers to contemplate the richness of language beyond one's own and the potential for a more interconnected existence that transcends human-centric limitations.

Arrival illustrates the profound impact of language and communication on shaping our worldview, particularly regarding our perception of time and space. The film resonates with the Sapir-Whorf hypothesis, which posits that language not only serves as a means of communication but also influences individuals' behaviour and thinking patterns, leading to different worldviews among speakers of different languages. This theory emphasizes the inseparable connection between language and perception of reality.

In the movie, a heightened interpretation of the Sapir-Whorf hypothesis is evident in Louise's physiological transformation after studying the alien language. The alien language, characterized by its circular nature without a distinct beginning or end, symbolizes interconnectedness and a nonlinear conception of time. Through mastering this language, Louise gains the ability to perceive the future as fluidly as the past, reflecting the Heptapods' unique temporal perspective. The film's underlying philosophy highlights how languages can reshape cognitive processes, including perceptions of time.

Louise's immersion in deciphering the alien language is depicted through her dreams and flashbacks, showcasing her evolving perception of time. These scenes underscore the key tenets of the Sapir-Whorf hypothesis, illustrating how language influences thought processes

and temporal understanding. It is in this scenario, that the claim of the superiority of human

language becomes questionable. In the film, the humans interpreted the whole

communication as a threat to mankind before deciphering what they were actually trying to

communicate. The aliens came to earth in peace to actually supply humanity with the gift of

their language. Their language is basically the ultimate form of communication which is very

complex and much developed.

Figure 2: The girl that appears in Louise's dream (*Arrival* 00:48:13)

The reason the aliens came down to earth is because they have already seen the future

and the need of humanities' help after thousands of years. The aliens understood that

humanity isn't necessarily ready to receive the gift because humans are divided. Hence the

Heptapods purposefully divided the gift into 12 separate parts, reaching 12 different countries

so that humanity would have to come together to complete it as a whole. The problem in the

movie stems from all those countries refusing to work together and interpret the language due

to selfish reasons. All the countries made slow progress, but none shared their interpretations

which in turn caused a lot to get lost in translation.

The film highlights the fragility of human communication, showcasing how misinterpretations and selfish motives can lead to disastrous consequences. The aliens, offering an advanced and benevolent form of language, encounter humanity's divisions and struggles to unite. The refusal of nations to collaborate and share crucial information results in a misunderstanding of the aliens' peaceful intent. The inability to embrace diverse modes of communication ultimately exposes humanity's vulnerability to internal conflicts and external threats. The narrative prompts reflection on the importance of cooperation, open-mindedness, and a shared understanding to navigate the complexities of communication and avoid catastrophic misunderstandings.

Figure 3: The Heptapods' spaceship (*Arrival 00:02:21*)

Chapter 3

The Dual Nature of Posthumanism

The movie *Arrival*, talks more about the human than the alien. Countless movies have told us how one would handle an alien invasion. *Arrival* is a movie about language. It's about the way people communicate, their failure to listen to entities other than human, their desire to twist language into what they want it to mean, and the consequences of misinterpreting the meaning of words.

The concept of distributed cognition is vividly depicted through the collaborative efforts of protagonist Dr Louise Banks and a team of experts tasked with deciphering the alien language. Dr Banks, a linguist, collaborates with physicist Ian Donnelly, pooling together their collective knowledge and expertise to unravel the mysteries presented by the alien symbols. These collaborative problem-solving underscores the dynamic interaction between internal and external resources in shaping cognitive activities. Through their combined efforts, they navigate linguistic barriers and gradually uncover the profound meanings embedded within the alien symbols. As Dr Banks immerses herself in the process of decoding the Heptapods' language, the film emphasizes the intricate interplay between internal cognitive processes and external environmental stimuli. Her interactions with the alien symbols serve as a catalyst for expanding her cognitive abilities, blurring the boundaries between individual cognition and external artifacts. The film portrays a symbiotic relationship between Dr Banks' internal cognitive processes and the external linguistic cues provided by the alien symbols, highlighting the interconnectedness of mind and environment in shaping cognitive activities.

The film delves into the realm of extended mind theory, exploring how external artifacts and systems become integrated into cognitive processes. Dr Banks' engagement with

the alien symbols serves as a prime example of the blurring of the distinction between mind, body, and environment in extended cognition. As she delves deeper into the complexities of the alien language, her cognitive processes extend beyond the confines of her individual mind, incorporating external linguistic cues provided by the alien symbols. The film illustrates how Dr Bank's interactions with the alien symbols become integral to her cognitive processes, shaping her perceptions and understanding of the world around her.

The movie makes people rethink about the superiority of languages. It shows how humans and aliens struggle to understand each other, suggesting a more open way of looking at languages. By showing the alien language and its deep meanings, the movie encourages people to think more broadly about language. The alien language is like a bridge, connecting different ways of communicating and showing how everything is connected. Dr Banks' interactions with the alien symbols show how rich and complex non-human-centred languages can be. *Arrival* also challenges the idea that only human languages are important. It says that one needs to consider all languages when they think about communication. The movie wants people to understand that languages aren't just for humans and that different cultures and creatures communicate in different ways.

The posthuman evokes both pleasure and terror. The application of the posthuman's inherent duality can be viewed in the film as well. In the film, this duality is reflected through the contrasting nature of the people. The US Army led by Colonel Weber, and military forces from other states, including General Shang's, stand on one side, while Louise and Ian stand on the other side.

At the beginning of the movie, the US Army wonders why it takes the Heptapods 18 hours to pump fresh air into the room where the humans meet them. He's suspicious of what they do behind the darkness. Ian provides an easy explanation that the Heptapods need to

rebalance the atmosphere for humans. But the US army colonel Weber misinterprets the logical explanation as a threat, because he's looking for a reason to choose violence, which shows their anthropocentric views, focusing excessively on human concerns while neglecting broader ecological and ethical considerations.

Another instance is shown much later in the movie. As nations around the globe are on the verge of firing first at the aliens, the Heptapods tell the Russians that there is no time. The Heptapods were trying to convey that there are no time barriers in their language. But the planet misinterprets that line as a threat, that they're running out of time. It spurs them into action and to choose violence.

Louise and her team on the other hand viewed the entire process with optimism with a curiosity and she knew the Heptapods language were much more complex and advanced than theirs. The linguistic advancements to humans once they decoded this language might have crossed through her mind. "Language is the foundation of civilization," Louise wrote in her book. "It is the glue that holds the people together. It is the first weapon drawn in a conflict" (*Arrival* 00:15:58-00:16:06). The film told the viewers in the opening minutes what the Heptapods were offering. Louise achieves a breakthrough with the Heptapods' written language as she doesn't understand who the girl she was dreaming and why she's experiencing them. Later, Costello (one of the Heptapod) tells her, "Louise has a weapon. Use weapon" (*Arrival* 01:29:34 – 01:29:45). This indicates that language is their weapon and Louise is the only one who is gifted with their language. The film's portrayal of language as a powerful weapon emphasizes the role of communication in shaping our understanding of the world. Dr Louise Banks, by embracing the Heptapods' language, becomes the conduit between humanity and the extraterrestrial visitors. She represents the posthuman who evokes pleasure. Perhaps Louise is someone who thinks that technologies can be averted to one's

own advancement meanwhile the military held on to their beliefs of fear and prejudices. The movie suggests that adopting a more inclusive attitude towards diverse forms of language could alleviate global panic and foster constructive interactions.

This discussion extends beyond the movie to the broader concept of posthumanism, which encounters with extraterrestrial intelligence challenging traditional notions of life, consciousness, and societal structures. The movie thus ends on a general note with the message Louise passes to General Shang: "In war, there are no winners, only widows" (*Arrival*: 01:42:40 – 01:42:56). The purpose of the Heptapods was to seek help from humans for something they foresaw after 3000 years. However, in order to communicate with humans then, they would have to teach humans their language now. But humans didn't have the technology or mindset to decode their language, constantly viewing it as a threat. In the narrative, the character of General Shang exemplifies the tendency of militaristic institutions to prioritize aggression over understanding. His mistrust and readiness to resort to violence reflect a broader trend in human history where language has been weaponized to assert dominance and control. This theme resonates with real-world examples where linguistic differences have been used to justify oppression, colonization, and conflict.

The concept of posthuman articulated by N. Katherine Hayles in *How We Became Posthuman: Virtual Bodies in Cybernetics, Literature, and Informatics*, is relevant here. Hayles argues for a posthuman future that doesn't seek to replace humanity but rather builds upon it, emphasizing the collaborative potential between humans and intelligent machines. "Just as the posthuman need not be antihuman, so it also need not be apocalyptic" (283). She says that the time to shape the posthuman future is now. By critically engaging with its possibilities and avoiding simplistic narratives, we can create a future that benefits all beings, human and non-human alike.

In this scenario, fostering inclusivity towards all forms of language, including that of extraterrestrials, becomes crucial. It is essential not to hastily draw conclusions or resort to aggressive actions but rather approach the situation with an inclusive mindset. Leaving the Heptapods aside, taking into account much-developed versions of communication including AI/ChatGPT, which was developed very recently, faced challenges in the beginning regarding inclusivity.

Presently, the global society is not fully inclusive, highlighting the need for a more open and understanding approach in the case of potential contact with extraterrestrial intelligences. However, whether one can actually welcome extraterrestrials and if their language that can unlock the barriers of time depends on multiple factors, as it is a speculative and complex topic which remains in the realm of speculative fiction today.

Conclusion

We are prompted to consider our ability to be inclusive of all forms of communication by the analysis of the movie *Arrival* (2016) which has given us important insights into the intricacies of language, time perception, and posthumanism. One has developed a deeper understanding of the relationship between language and cognition as well as the wider implications of linguistic inclusivity in influencing human interactions through a nuanced examination of the film's speculative fiction genre and its portrayal of various aspects such as language, time perception, and posthumanism.

The movie questions conventional anthropocentric viewpoints and highlights the value of accepting a variety of communication methods through its representation of language as a transforming tool. The movie challenges us to reevaluate our beliefs about linguistic superiority and appreciate the richness of linguistic diversity by presenting language as a potent medium that cuts across conventional limits.

The way the movie depicts temporal perceptions on communication and interaction emphasizes how language, thought, and social systems are all intertwined. One can see how a posthuman can evoke both terror and pleasure to the unseen and how language has the power to alter our ideas of reality and the way we comprehend the outside world by following Dr Louise Banks on her remarkable journey to comprehend the Heptapods' language. This however, also draw attention to the difficulties and constraints associated with our present linguistic inclusivity.

This emphasizes how important it is to promote a more inclusive attitude toward linguistic variety and how important it is to be more conscious of and receptive to different types of communication. While it may not be possible to be completely inclusive of all languages at this time, the movie gives viewers hope for the future by implying that with

continuing discussion, comprehension, and openness, it is possible to work toward a more inclusive and interconnected society in which all forms of communication are acknowledged and treasured. Viewers are reminded, the value of promoting a more inclusive attitude toward all languages and appreciating linguistic diversity. Even though the subject of one's inclusion to other languages may not have been fully addressed, the film's portrayal of a journey of self-discovery and understanding gives hope.

Works Consulted

Abrams, M H and Harpham, Geoffrey Galt . *A Glossary of Literary Terms*.

WadsworthCengage Learning, Cop, 2015.

Cole-Turner, Ron. "Posthumanism and Transhumanism." *Encyclopedia of Religious Ethics*,

June 2022, pp. 1098–105, https://doi.org/10.1002/9781118499528.ch122.

"Decoding the Linguistic Geekiness behind 'Arrival's' Sci-Fi Sheen." *Los Angeles Times*, 25

Nov. 2016, www.latimes.com/entertainment/movies/la-et-mn-arrival-movie-linguist-

20161125-story.html#:~:text=One%20core%20idea%20the%20movie. Accessed 7

Feb. 2024.

Dijk, Mathilde Van. "Living with Time: Spirituality and Denis Villeneuve's Arrival."

Religions, vol. 12, no. 1, Jan. 2021, p. 17, https://doi.org/10.3390/rel12010017.

"Exploring the Themes of 'Arrival': Communication, Connection, and the Circle of Life."

Www.linkedin.com, www.linkedin.com/pulse/exploring-themes-arrival-

communication-connection-circle-

fechner#:~:text=%22Arrival%22%20is%20an%20intriguing%20and.

Hayles, N Katherine. *How We Became Posthuman Virtual Bodies in Cybernetics,*

Literature,and Informatics. Chicago, The University Of Chicago Press, 2008.

Hupkes, Tisha. "Non-Anthropocentric Design Thinking."2019

Neuwirth, Manuela. "'Absolute Alterity'? The Alien Animal, the Human Alien, and the

Limits of Posthumanism in Star Trek1." *European Journal of American Studies*, vol.

13, no. 1, May 2018, https://doi.org/10.4000/ejas.12464. Accessed 25 May 2020.

"Posthumanism." *Obo*, www.oxfordbibliographies.com/display/document/obo-

9780190221911/obo-9780190221911-

0122.xml#:~:text=Posthumanism%20is%20a%20mode%20of.

Storm, Jason Ā. Josephson. "'Arrival' of the Sinosphere or the Political Unconscious of

Space Invaders." *Absolute Disruption: Theory after Postmodernism*, 30 June 2017,

absolute-disruption.com/2017/06/30/arrival-or-the-political-unconscious-of-space-

invaders/. Accessed 7 Feb. 2024.

Tamek, Mounna. "Sapir-Whorf Hypothesis and Its Implications in the Movie

    'Arrival.'"*Tamek*, 18 Dec. 2017, medium.com/tamek/sapir-whorf-hypothesis-

    and-its- implications-in-the-movie-arrival-9b4b1d509dbc.

"The Philosophy of Language in Arrival." *Cinemablography*,

    www.cinemablography.org/blog/the-philosophy-of-language-in-arrival.

Wagner-McGough, Sean. "Https://Thelongshot.substack.com/." *Thelongshot.substack.com*,

    thelongshot.substack.com/. Accessed 7 Feb. 2024.

Wilkinson, Alissa. "Arrival Is a Stunning Science Fiction Movie with Deep Implications for

    Today." *Vox*, Vox, 11 Nov. 2016, www.vox.com/culture/2016/11/11/13587262/arrival-

    movie-review-amy-adams-denis-villeneuve.