

Embodied Death, Experience, and the Posthuman Self in the Artificial Memories World in *Blade Runner 2049*¹

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Abstract

The article aims to analyze memories in the philosophical film *Blade Runner 2049*. The film presents a posthuman existence, which challenges traditional definitions of memory and experiences. In the film, memory is presented as digital data that can be duplicated into spherical glass objects to prevent the loss of digital data if the digital space collapses. Additionally, memory is displayed as objects created by the memory architect that can be implanted into humanoid beings known as Replicants. The article begins by presenting the differing perspectives of two important philosophers, John Locke and Maurice Merleau-Ponty, to illustrate different views on explaining the relationship between identity and experience. Based on the film, memory can appear as digital data and be preserved as physical materials. Memories, therefore, can be in both tangible and electronic forms. Both forms refer to each other or retrieve if any form of memory is lost. The designed and implanted futuristic memories continue to play a crucial role in shaping identity. Moreover, the article aims to analyze K-officer, the main character. K's memories can be divided into two parts, that is, artificially implanted memory and authentically experiential memory. The article argues that experiential memories that arise from his questioning about his existence profoundly influence him more than implanted memories. In the final scene of the film, K fulfills his meaning of life through saving Ana and Deckard's lives. Those moments illustrate how his actions determine his existence and identity. After analyzing K's existence through the philosophical lenses of Donna Haraway's cyborg theory and Katherine Hayles's embodiment, it could be argued that K's existence can be described as a mixed being that is formed by the relationship between technology and embodiment. K can choose the meaning of existence through embodied actions that involve cooperation with technology. K exists through the embodiment of actions, choices, and real experiences, and K's existence ends with embodied death.

Keywords: Embodied death, Memories, *Blade Runner 2049*, Posthuman, Cyborg

Introduction

Basically, if one philosophically asks what identity is, traditional philosophy often explains that identity is linked to memory and experience. In simpler terms, identity can be defined as the connection between memory and experience that occurs throughout human life. Our memories and life events create who we are and where we come from. Some philosopher states that identity is a fundamental indicator of specifying an

individual's self. Defining '*what identity is*' is searching for the invariability of being or the quality of a thing. Identity thus means when something travels through time and is still the same thing because its being, or quality, denotes that the old and new things (the same things after time passes) are identical. Significantly, the meaning that I have mentioned here should be recognized as an aftereffect of traditional philosophical inquiry into metaphysics, which aspires to explain the

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nature of truth. This meaning is distinct from the phenomenological interpretation of identity, which examines perception and experience as the foundation of identity. According to this, identity is defined as “A is counted as identical to B only if everything true of A is also true of B and vice versa” (Garrett, 2006, p. 121). A common philosophical example used to illustrate the meaning of identity is the continuity of a ship. That is, if one ship travels across the ocean for a very long time, until it becomes very old. Some parts of that ship must be repaired. The question is, will the ship still be the same as the previous one? This issue has still been controversial. However, according to traditional philosophy, identity is imposed and connects to personal memories and life experiences indispensably.

This article would consider the memory that appears in *Blade Runner 2049*, a philosophical sci-fi film that sketches a futurist world, which challenges the traditional definition of memory. I will highlight the development of the protagonist character, K-officer. The article would begin with an exploration of Locke’s concept of personal identity. Locke sees that consciousness, which recognizes memories and maintains its continuum, establishes personal identity. Consciousness’s continuity weaves together past and present memories and ultimately constructs one’s identity. Next, I will introduce Merleau-Ponty’s phenomenological idea of embodiment. Merleau-Ponty views the body as a crucial medium for perceiving the world, to illustrate different views on explaining the relationship between identity and experience. Then, I will demonstrate the patterns of memory in film, as follows: artificial memory and experiential memory, and I will present Haraway’s cyborg theory and Hayles’s embodiment in posthumanism to use as philosophical lenses to analyze memories of K-officer and K’s existence that link to memories in film. Additionally, I will reference a significant scene that illustrates K’s sense of life fulfillment by saving Stelline and Deckard, which supports the article’s argument that embodiment in cognition remains essential in the posthuman world.

Locke’s concept of personal identity

John Locke (1632-1704) is one of the big-name philosophers of the modern age who raises the debate on personal identity. Although Locke’s ideas on personal

identity remain contentious, they have significantly contributed to subsequent philosophical theories and have been widely applied in later philosophy and various scientific fields, particularly as the foundation for psychological theories that describe the self (Afroza, 2023). Locke views that a person has attributes of self-consideration and reasoning. A person can consciously recognize their own existence because they are fundamentally made up of consciousness, and this personal consciousness provides a sense of continuity in awareness. For Locke, the assertion that a person is identical can be proven by the continuity of conscious awareness, which operates consistently across all times and places. Locke believes that the continuity of consciousness is the origin of personal identity and acts as a construct of the personal self. Locke’s argument is based on the attribute of consciousness, which he claims has the potential to collect and interweave thoughts and actions from both the past and present. The continuity of consciousness can construct memory that is the significant source that contributes to a person recognizing and understanding himself and the world consistently. Once more, memory in consciousness plays a crucial role for retrieving past events to present them in consciousness, and this potential of retrieving is what sustains personal identity. Moreover, personal identity is specifically shaped by all the past actions and events that a person can retrieve only in their consciousness. For example, if a person can recall the events of World War II, they would consider it an event that contributes to their personal identity just as much as a recent event in their life. It could be said that the frontiers of personal identity can be broad and rewound as far as consciousness recalls the earliest and oldest memories. However, Locke’s argument has a weak point that was critiqued: if a person disremembers their certain actions in the past, those actions would no longer be considered as part of their personal identity, such as dementia and transient amnesia (Afroza, 2023; Stuart, 2013). As Locke noted,

“to find wherein personal identity consists, we must consider what *person* stand for; which, I think, is a thinking intelligent being, that has reason and reflection, and can consider itself as itself, the same thinking thing, in different times and places; which it does only by that consciousness which is inseparable from thinking, and

as it seems to me essential to it; it being impossible for any one to perceive without perceiving that he does perceive.” (Locke, 1924, p. 188).

Another point Locke emphasized is the importance of the continuity of consciousness, demonstrating that if similar consciousness persists, similar personality remains; being the same person means having the same original consciousness, as mentioned.

“For since consciousness always accompanies thinking and it is that that makes every one to be what he calls self, and thereby distinguishes himself from all other thinking things; in this alone consists personal identity, i.e., the sameness of a rational being: and as far as this consciousness can be extended backwards to any past action or thought, so far reaches the identity of that person; it is same self now it was then; and it is by the same self with this present one that now reflects on it, that that action was done.” (Locke, 1924, p. 188).

From Locke’s proposal, we can see that events and actions are intertwined together through a continuum of consciousness, as memories, and memories determine personal identity. As an empiricist, Locke’s argument of personal identity accords with his epistemological theory. That is, Locke intimates that experience is the source of knowledge. Locke uses the word “idea” to stand for “concept” and presents that ideas arise from experiences. Locke categorizes types of ideas by sources into ideas of sensation that are external experiences, such as vision, hearing, and touching, and ideas of reflection that are internal experiences, such as the experience of pain and delightfulness. Furthermore, Locke divides the characteristics of an idea into two categories: simple ideas and complex ideas. Simple ideas are derived from direct experiences, while complex ideas are formed through the imaginative combination of various simple ideas (it will not be discussed in detail here). The relationship between simple ideas and complex ideas is comparable to the relationship between atoms and molecules. If there is no atom, a molecule would not form; at the same time, atoms can assemble in numerous complex patterns to form various molecules. From this view, it is undoubtedly that Locke disagrees with the idealist

notion that ideas are innate. Locke sees that if everyone shares certain innate concepts, then all humans must have the same understanding or perspective on the world; in reality, this offer is the opposite for him (Hospers, 1967; Lowe, 2003).

To explain further, Lockean personal identity is defined by the continuity of consciousness and memories. The question of “who am I” shifted from the metaphysics of essence to the layer of conscious experience and the continuity of self-awareness. Locke presents that “personal” does not equal physical body because the body persistently changes, biological cells are always replaced, and biological configuration is always transformed; humans would not elaborate identity continuity accurately if they asserted the definition with body condition. Yet, Locke does not define the personal as a soul or immaterial state because he views that one soul may be connected to multiple individuals; for Locke, what makes a person “the same person” over time is not their substance but their numerical identity that unfolds through the continuum of consciousness. It means that consciousness is inseparable from thought; therefore, the self is “that which thinks consciously,” perceiving happiness and suffering, and caring for oneself as long as that consciousness extends. In other words, the scope of the self is equal to the scope of consciousness. In overview, Lockean personal identity was settled on the seamless stream of consciousness and memories, which connect whole experiences in different times together. The Lockean persona also implies a state that is responsible for his/her actions. The Lockean identity thus has underlying moral and legal dimensions. It might be observed that the Lockean continuity of self is not merely a metaphysical question but directly concerns ethical responsibility as well (Locke, 1924; Meijsing, 2022).

Maurice Merleau-Ponty and embodiment

Now, let us turn from Locke’s philosophy to explore phenomenology, which emphasizes the inevitable association of experience with the body. Maurice Merleau-Ponty (1908-1961) is the prominent phenomenologist who expounds that human beings perceive and understand the world in such a way that human beings perceive themselves concurrently with perceiving the world as the dwelling in which they exist.

Human beings experience worldness in a manner determined by their human configuration, which influences how humans (as their bodies) interact with the world (Verela et al. , 2016) . Merleau- Ponty, moreover, explains that the body is essentially a basic part of existence in the world; that is, the body exists as a body, and simultaneously, the body also exists as a subject (of bodily experience) when the body exists in worldly phenomena, so-called the body as subject. Also, the body perceives specific experiences of external substances and the world. According to this, the body exists as a medium of perceptual awareness, movement, and locomotion in the world and exists as an area of perception of the subject itself and the world. Entire understanding in human cognition must rely on body scheme and unavoidably relates to situatedness, locus, and body orientations; furthermore, it concerns the position and space between the body and other objects in the situation. For this reason, Merleau-Ponty claims that the body is the base of perception and understanding of worldly experiences, and the world has never been phenomenologically dissociated from humans (Reynolds, 2006). As Merleau-Ponty suggested,

“Perception is not a science of the world, it is not even an act, a deliberate taking up of a position; it is the background from which all acts stand out, and is presupposed by them: The world is not an object such that I have in my possession the law of its making; it is the natural setting of, and field for, all my thoughts and all my explicit perceptions.” (Merleau-Ponty, 2012, p. lxxiv).

In other words, Merleau- Ponty annotates his phenomenological principle through the concept of the lived body. Merleau-Ponty argues that when a body is situated in everyday life, it constantly confronts the world and does not exist merely as a scientific object; instead, it reveals itself as a lived body—a medium that facilitates bodily experiences and meanings derived from embodiment. In this context, bodily perception and conscious awareness are interconnected; thus, the body is unified with the mind, and sensations such as auditory, visual, and emotional have inherently coexisted with the body in the world. It is possible to say that the body perceives bodily movements and kinesthetics itself and recognizes how it can interact

with the world efficiently. Merleau- Ponty further explains that the lived body represents a pre-reflective functional mode of existence, which flows seamlessly within various situations. Alternatively stated, the lived body is the body in a situation that is both subjective and objective. The body’s experience involves both perceiving what occurs in subjective phenomena and simultaneously being an object that is acted upon by itself in relation to and contact with the world; this phenomenon is referred to as ‘double- touching. ’ (Cerbone, 2006; Reynolds, 2006) . For example, we walk through a door without comparing its width to our body width, we type text on a keyboard without looking at it, or we perform various postures that involve muscle contraction and extension (Merleau- Ponty, 2012) . Or, examples that we are habitual in daily life, like when we reach for a bottle of water to pour into a glass, or when we get up and walk out of the bedroom and twist around an obstacle to walk to the living room. We have not calculated the distance, force, and energy using scientific objectivism for these activities in routines. Instead, our bodies instinctively respond to the world without conscious thought because these activities have been practiced until they become transparent in consciousness and absorbed through repeated bodily practices (Jackson, 2016). In conclusion, Merleau-Ponty views human existence as basically embodiment. Consciousness is not beyond the body but consolidated within it, and human beings are what a lived body residentially confronts in worldly phenomena. As Merleau-Ponty wrote,

“I am not in front of my body, I am in my body, or rather I am my body” (Merleau-Ponty, 2012, p. 151).

From two perspectives, the divergence between Locke and Merleau-Ponty lies in Locke’s suggestion that perceiving the external world serves as the source of knowledge. Sensation is the receiver of experiential information and then converts it to simple and complex ideas through a consciousness procedure, and the continuity of consciousness that constantly performs the continuum of experiential awareness creates memories that define personal identity. While Merleau- Ponty concludes that the lived body is the primary means of understanding the world, he asserts that the self is inevitably connected to an embodied state that

continuously exists in the world. In terms of memory, it is a state in which the body encounters the world until it becomes accustomed to being one with the environment, that is, a body that understands the world can therefore perform pre-reflective and embodied activities. It could be stated that memory happens and is in phenomena, and Merleau-Ponty's phenomenological ideal standpoint induces Merleau-Ponty to claim that humans always and presently exist in phenomena. Activities happened in the past time shape cognition, understanding, and action until they sedimentize to be a homogenous layer of experiential perception and the world, and it will increase to become historical thickness of experiential perception that can be carried on continuously in the present (Toadvine, 2016).

Significantly, I would like to emphasize that Merleau-Ponty highlights the ambiguity of the fundamental structure of bodily existence in the world, and understanding this relies on the nature of the body. The ambiguity originates from the invisible relation between the body and the world, called the lived relation. Merleau-Ponty points out that we, as human beings, cannot fully perceive the state of being present to ourselves because our existence has always been revealed through time and our connection to the world. The ambiguity arises because human beings' relationship with the world has been invisible and remains somewhat open. A human being cannot withdraw from their activities to detect lived relations from an external perspective with disembodied moments because the reflective process of human consciousness is inherently embedded in the world. The ambiguity indicates that a human being is not only subjective in worldly activities but also objective, shaped by the world simultaneously. Merleau-Ponty sees ambiguity as an ontological condition of being human, existing between the subject and the object, and between bodily awareness and being determined by the world. Ambiguity is the structure that allows meaning to arise because humans are not closed entities but rather relationships that are always open in the world and in time (Toadvine, 2016). As he said,

"I know myself only insofar as I am inherent in time and in the world; that is, I know myself only in my ambiguity." (Merleau-Ponty, 2012, p. 360).

The next section, I will discuss patterns of the memory that appear in *Blade Runner 2049*.

Blade Runner 2049: Memory in the future world

Blade Runner 2049 (2017) is a philosophical sci-fi film directed by Denis Villeneuve. The film projects future world depictions in the year 2049. The *Blade Runner* dystopian society employs synthetic bioengineered beings called Replicants designed to serve as slaves for humans. KD6-3.7 (K) is a recent-generation replicant specifically designed to serve as a *Blade Runner*, tasked with hunting and retiring illegal old-generation replicants. During duty, K finds the clues that imply the replicant has been able to give birth. It defies conventional understanding between humans and replicants. After deeper K's investigation, K found himself having realistic childhood memories, so much so that it made K believe that K might be "the child in his memory." This memory becomes the stimulus that causes K to question his identity. During the investigation, K meets Dr. Ana Stelline, a designer of artificial memories for replicants, who plays a key role in examining his memories. Ana insists that the memories implanted in K are real and not just fabricated. The memories were transformed from another person's into K's memories. This fact leads K to believe that he is a descendant of a replicant capable of giving birth. However, eventually, the film solves the problem that Ana is that child in K's memories, and she is the true owner of those realistic memories. At the final significant scene, albeit K is not 'that child' as K desires, the memories make K discover the authentic meaning of existence, that is, choosing the meaningful action by K's freedom. He decides to sacrifice his life to bring Deckard to meet his true daughter, who is Ana (Villeneuve, 2017).

Blade Runner 2049 presents a new aspect of defining the concept of memory and experience that challenges the conventional meaning of memory. In film, memories can be categorized into two types: real memories that originate from actual experiences and artificial memories that are created and implanted in replicants. Real memories arise from beings phenomenologically confronting situations and events. This kind of memory is perceived by beings living and participating in events and phenomena. The possessor

of real memories understands those events emotionally and sentimentally. Artificial memories are designed by Ana (the story shows that Ana is the sole memory architect and is the one who designed all the memories for the Replicants) and implanted into replicants. For memory design, the film shows that artificial memories are designed by Ana's imagination. Ana is in a dome-like mirror laboratory. While Ana designs memories, the memories being formed reveal themselves as 3D visual holograms (the film shows a birthday party scene with children). Ana must assess the emotional stimulation that artificial memories might provoke in replicants before implanting them. The crafting of memory in the story is a vital point that reflects a new form of futurist memory. That is, memories in film can be crafted, configured, and transferred; furthermore, transferring real memories from one person to another is accomplishable.

Moreover, in the film, memories are represented as digital data that can be preserved, transferred, and implanted into replicants; they can also be duplicated into spherical glass objects to safeguard against losing this digital data in the event of an unpredictable collapse of online storage (as seen in the *Blade Runner* film franchise, where a blackout causes all digital data, including photos and bank documents, to vanish). Significantly, memory can appear as digital data and be preserved as physical materials; in other words, memories can be tangible and electronic forms that can be referenced together if one form is lost. The projection of memory of the film represents memories that can be stored in online space, which is similar to electronic files. Memories can be converted to digital files and stored in drives, and there are ongoing physical memories in replicants. Could we say that memories are hard copies and soft copies, just like document files? We can see that memories in film not only challenge the traditional definition of memory but also predict the potential existence of a memory entity in the future. For this reason, memories in *Blade Runner 2049* are distinct from normal memories in biological brains, which can be recalled from thinking of the past or by perceiving memory-triggering materials, such as photos, a gift from a loved one, toys from childhood, etc.

However, we should not overlook the importance of experiential memory, which depends on the body to perceive and interpret the world. While films may

represent memory in digital formats, sensory memory is still vital. This ongoing debate remains a controversial issue today.

Nonetheless, memories still hinge on emotional resonance; that is, we can distinguish artificial memories and real memories from emotional intensity. In scene K's memory investigation, Ana states that real memories have no need to carry many details. Rather, we recall it with feelings. Real memories trigger emotions and always can confuse us; this explanation of memory is consistent with Merleau-Ponty's concept of ambiguity. In terms of identity, implanting artificial memories into replicants is the construction of personal identity. This kind of identity is not generated from participating and experiencing worldly events. This process is similar to installing software in robotics and subsequently deploying the robots in a real environment, a method referred to as top-down techniques in robotics design. The key difference between replicants and top-down robotics is that replicants possess bioengineered organic bodies similar to those of humans. This means that replicants are created with implanted memories in adult bodies, but they lack childhood experiences and the historical thickness of perception as described by Merleau-Ponty. It could be stated that replicants' historical thickness of perception begins with the adult body, not from infancy like human beings. However, replicants will receive real memory after they participate in and experience worldly events based on the physical conditions they are designed for.

Philosophical analysis on memory in *Blade Runner 2049*

The philosophical investigation of memories in the film displays that futurist memories that can appear as digital files, spherical glass objects, and tangible things in replicants, as previously described, are in compliance with Donna Haraway (1944-present)'s philosophical proposal suggested in her masterpiece essay "A Cyborg Manifesto: Science, Technology, and Socialist-Feminism in the Late Twentieth Century" (1991). Haraway suggests that the rise of the cyborg is the dismantlement of the traditional Western paradigm. Cyborgs, as hybrid existences of technological machines and biologically organic beings, enragedly demand all of us to reconceptualize onto-epistemological perspectives. Haraway points out that in

the world in the late twentieth century, humans cannot reject the coexistence of humans and technology in the same ecosystem. Cyborgs are the existences that conjointly intertwine the real world and the fictional world. Cyborgs create trembling of annihilation to three modernist boundaries. One of those is breaking the boundary between living beings and machines. Cyborgs create a state of ambiguity and focus on the interconnectedness between the inseparable existences of humans and technology. Furthermore, cyborgs create a bridge between physical and non-physical states and highlight conceptual and practical intersections between physical and non-physical states that arise from technologies and scientific advancements. Haraway exemplifies that modern machines are not only physical matters but also non-physical signals and invisible energy. This shift creates difficulty in determining whether they are materials or non-materials. For example, the mobile is made of physical objects, like screen glass, aluminum, metal, copper, CPU, circuit board, etc. At the same time, mobile functions can serve as communication channels for non-physical matters, like electromagnetic waves and radio waves. This example illustrates the ambiguous distinction between non-physical and physical entities. Another example is the decoding of biological organisms, where scientific and technological cultures develop processes to decode codes hidden in biological systems. Haraway suggests that biotechnology revolutionizes biology. It shakes the traditional view that sees biology elements as physical organisms and objects of knowledge by presenting a new way of understanding biology as coding. Biotechnology creates procedures of converting biology to symbolic data, as we have seen in molecular genetics science, ecology, and the sociobiological theory of evolution. This standpoint also leads to the understanding that biological living beings are akin to coded text and suggests that biomolecules, such as DNA, are not merely physical objects but can also perform in symbolic form (Haraway, 1991).

So, the concept of cyborgs is stressing that history has stepped into a post-dualism world, that is, dualist perspectives from modern Western explanations have collapsed and have been surrogated by boundless ambiguity in all areas. If we consider the memories in film through Haraway's cyborg perspective, it can be argued that the memories can exist in both physical and

non-physical entities. Memories present as spherical glass objects that refer to digital electronic memories stored in drives and corporeal memories in replicants. Furthermore, they can be transferred and crafted for implanting into replicants, which physically impacts replicants, particularly in terms of actions, decisions, and challenging replicants' own existences.

K's existence and emergence of embodied death

For the main character, K-officer, K's implanted memories were swapped with Ana's, a memory architecture. After K obtained the investigation from Ana, he found that his memories were authentic (which means he did not have artificial memories loaded into him). It led K to misunderstand that he is the descendant of replicants who are born from pregnancy. However, as a matter of fact, all those authentic memories belong to Ana. If we consider K's existence, we can figure out that K's memories can be categorized into two types: artificially implanted memory (Ana's authentic memories) and authentically experiential memory. Both types of memories influence the self-construction of K. That is, implanted memories cause K to question his existence and lead him to pursue the existential truth about who he is and where his origin is. Until he discovers that he is a replicant who served for memory swapping to conceal the replicants' rebel group's secret from Wallace, the creator of replicants. (The understanding of K's memories is my interpretation of the film, which is one of the possibilities the audience can predict from the clues in the film.) Regarding experiential memories, this impacts the self-construction of K as well. Experiential memories resulted from K's confrontation with any phenomena in the world. K's body serves as a medium that connects K to the world in an embodied way. It allows K to understand and experience the world as his body was designed and This type of memory also leads to questions about himself.

In terms of ontology, K's existence is an affinitive being that is constructed by a coalition of implanted memory and experiential memory. K's existence cannot simply be classified as a construct of either implanted memories or experiential memories gained from interacting with the world; rather, it is formed through a complex intertwining of both types of memory. Implanted memories define acquired understanding

(albeit those memories are not his and/or it is artificial), and experiential memories that K phenomenologically obtains through embodiment, which is inseparable from the physical world he exists in, construct K's decision and action. In other words, his existence emerges by entanglement between non-physical representation and physical embodiment. This existence cannot escape over Haraway's explanation; that is, it can be considered that K is a post-dualist being. His existence is not purely technological or purely organic, but a hybrid being as a cyborg.

Moreover, K's existence represents that bodily embodiment is crucial for perception and existence. This case of K allows us to connect the proposals of Katherine Hayles (1943-present), which suggests that based on posthumanism, cognition in existence is constituted by linking cooperation of humans and non-human actors (Hayles, 1999) and embodiment should be interpreted as the essential ground of posthuman existence, which acknowledges that embodiment is essential part that interworks with disembodied information in the construction of existence, as Hayles noted that

"My dream is a version of the posthuman that embraces the possibilities of information technologies without being seduced by fantasies of unlimited power and disembodied immortality, that recognizes and celebrates finitude as a condition of human being, and that understands human life is embedded in a material world of great complexity, one on which we depend for our continued survival." (Hayles, 1999, p. 5)

That is, albeit the construction of K's existence emerges from implanted memories and experiential memories, the existence will be meaningful only if K brings those memories to interact and subjectively constitute the meaning of existence in the world and does not treat artificial memories as mere plain data. Especially in the final scene, K's existence gains meaning as he chooses to save Deckard and Ana by sacrificing his own life. This action defines his existential self by choosing to create embodied experiences that help him understand who he is. Therefore, K's existence can be described as a mixed being that is formed by the relationship between technology and embodiment. According to this manner,

K can choose the meaning of existence through embodied action (corporate with technology). K exists through the embodiment of actions, choices, and real experiences, and K's existence ends with embodied death. In this way, the embodied death of K means sacrificing K's life to save the others' lives; it was an event that cannot be replicated as digital data, particularly the death through sacrifice that is an embodied experience that cannot be replicated.

In other words, the case of K presents that, albeit the Blade Runner 2049 world allows for the implantation, transfer, and duplication of data and memories, or even uploading them to drives and converting them to memory spheres, embodied death that arises from experiential confrontations cannot be duplicated or replaced. Furthermore, the embodied death experience of sacrificing one's life for others is a phenomenologically unique event that defines selfhood and gives meaning to life as a replicant to K as a replicant who experiences the death. Significantly, only K can grasp this meaning subjectively. And embodied death in this philosophical consideration shows that embodiment in cognition is still crucial in the posthuman world, despite the blurred boundary between the organic and technology in constructing posthuman existence.

Importantly, my argument does not mean placing the center with embodiment, which reduces the crucial role of technology and brings us back to humanism. In my opinion, technology has the crucial role for defining and changing memories, which open the horizon to express the posthuman condition beyond biological limitation. On the other hand, embodiment does not make technology meaningless but contributes to it by connecting bodily experiences with the world and producing meaning in existentialist terms. Therefore, embodiment and technology are equally crucial and interconnect to form the posthuman existence, but embodiment performs as a condition of meaning and existentially mediates technological memories with lived experience and identity formation. Reiteratedly, my proposal is not to suggest that embodiment is more important than technology, but rather that both together create posthuman existence. Embodiment, which functions as situatedness in phenomena, associates alongside technology, which opens the possibility for existence, in the co-constitutive relationship that shapes

existence. In their collaboration, embodiment seamlessly intertwines technology and the world.

Conclusion

In Blade Runner 2049, memories can be categorized into two types, that is, real memories from experiences and artificial memories designed by a memory architect and implanted in replicants. The memories in film appear in digital form, such as digital files, 3D holograms, and memories stored in drives; in physical materials, like glass spheres; and in implanted form into replicants. The presence of these memories devastates the boundary between the physical and the non-physical. It is in line with Haraway's cyborg ontology theory that deconstructs modern dualism and discloses an alternative existence as a hybridity of technology and embodiment. In this manner, K's existence is not even shaped by either implanted memories, which were swapped with Ana, or by his experiential memories received from world confrontations, but rather through the entanglement of both types of memories. This argument challenges conventional perspectives of identity rooted in the continuity of consciousness and bodily experience in embodiment.

Moreover, K's existence represents Hayles's posthumanism that cognition is constituted through interaction between disembodied information and embodiment. Albeit K's memories are implanted or are artificial, his embodied action of sacrificing his life to save Deckard and Ana in the final scene presents him a meaning of life. Existentially, K's embodied death cannot be duplicated by digital information or replaced by any form of experience. Most importantly, K's embodied death displays that embodiment remains indispensable as the condition that mediates technological memory and grounds existential meaning in the posthuman era.

Declaration of generative AI in scientific writing

The author declare that Artificial Intelligent (AI) tools were used in the preparation of this manuscript only for grammar correction. The author takes full responsibility for the content, interpretation, and conclusion of this work.

CRedit author statement

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