Journal of Human Cognition
2024, VOL. 8, NO. 2, 17-28
DOI: 10.47297/wspjhcWSP2515-469903.20240802

On the Moral Status of Artificial Cognition to Natural Cognition

Jianhua Xie

School of Marxism, Taiyuan Normal University, Jinzhong 030619, China

ABSTRACT

Artificial Cognition (AC) has provoked a great deal of controversy in recent years. Concerns over its development have revolved around the questions of whether or not a moral status may be ascribed to AC and, if so, how could it be characterized? This paper provides an analysis of consciousness as a means to query the moral status of AC. This method suggests that the question of moral status of artificial cognition depends upon the level of development of consciousness achieved. As a means by which to distinguish among different levels of technological capabilities, we propose a scale of AC statuses in the relationship with natural cognition of humans: no status, low status, equal status and high status. This research draws from classical theories of ethics, in particular utilitarianism and deontology, to explain the differences and shortcomings of the four propositions. The philosophical arguments presented serve to challenge common assumptions about natural cognition of human relationships with AC as well as to suggest that future technological advances should be directed toward the achievement of a position of equality in those relationships. This shows that artificial cognition has no moral status at present, but could have the same moral status as natural cognition of human beings in the future.

KEYWORDS

Artificial cognition; Moral status; Consciousness; Deontology; Utilitarianism

1 The Consciousness Ability of Artificial Intelligence/Artificial Cognition

The rapid development of Artificial Cognition (AC) has generated a number of important ethical and moral debates that will become increasingly prominent in the future. In this paper, I explore the urgent issue of AC's place in future society. I employ the concept of "moral status", which refers to AC's position in the moral world, along with a series of rights and obligations[1] attributed to AC in pursuit of the greater good. A key question about AC is whether there exists a moral status and, if so, what it would be. On the one hand, a number of scholars, such as Aquinas (1975, 1981), Descartes (1983), and Searle (1980), have posited that AC, like machinery in general, has no moral status. On the other hand, many people believe that if AC has perceptual characteristics, it has moral status (Bostrom 2018; Bostrom et al. 2018; Ziesche and Yampolskiy 2019). At the same time, AC may have lower or higher moral status than natural cognition of human beings. Although most humans could accept a proposition of low status for ACs, many would view the proposition of a high status as dangerous. These very distinct perspectives have made it difficult to clarify the moral status of AC.

The level of intelligence of AC needs to be determined to be able to address a possible moral

1 The series of rights and obligations refer to the powers and responsibilities of the subject.

status from a perspective that distinguishes fact from value. The ability for AC consciousness may provide a basis for analysis of the level of artificial cognition. That intelligence evolution from the consciousness ability in nature. Although artificial cognition may not follow the same evolutionary process of natural intelligence, natural intelligence may be an important reference for artificial cognition (Wei 2019). The evolution of intelligence provides a useful means by which to track the generation of consciousness, with the development of sensation, memory, emotion, intelligence, self-awareness and rationality.[2] These consciousness abilities primarily are observed in animals in nature. There are seven classifications of animals: invertebrate, fish, amphibian, reptile, bird, mammal and human[3]. The six existing consciousness abilities of animals together with the super intelligence of transhumans[4] in the future comprise the seven possible levels of consciousness. The discussion considers seven types of consciousness ability and the corresponding relationship to eight types of entities. These seven types of consciousness ability may explain the process of intelligence generation and the consciousness level of different ACs. These seven consciousness abilities prove distinct and are embodied in different entities.

A: Sensation may be defined as the reflection of objective stimuli on the individual properties produced by sensory organs. Some invertebrates have sensation, and all vertebrates have sensation (Tang et al. 2004).[5]

B: Memory may be defined as the process of encoding, storing, and extracting information. There are different types of memory, including image-based, emotional, logical, instantaneous, short-term, and long-term. These different types of memory ability may be characterized as low or high level. According to the standard of low-level memory ability, most animals and even some fish have memory capabilities (Williams et al. 2002).

C: Emotion may be defined as a being ' s attitude toward objective things. Primitive emotions, such as fear, have been attributed to the reptilian brain and evolved first. Filial emotions have been attributed to the paleo-mammalian brain (limbic system) and are believed to have evolved in early mammals. Social emotions, such as guilt and pride, may be related to the neo-mammalian brain and evolved in social primates (Holden 1979).[6] Therefore, all vertebrates more evolved than reptiles have emotions.

D: Intelligence may be defined as the ability to identify, judge, evaluate actual causes, and make behaviors adapt in specific purposes, and produce specific results. Some birds exhibit intelligence such as New Caledonian crows that manufacture tools by breaking twigs off bushes and trimming them to produce functional stick tools (Hunt 1996). Several other vertebrates also demonstrate intelligence. For example, killer whales use strategies to capture minke whales (Ford et al. 2005).

2 One also could employ additional concepts (such as feeling, sensation, instinct, desire, intuition, thought, attitude, and belief).

3 Although humans are mammals, I treat human separately due to the superior intelligence they possess compared to other mammals.

4 Transhumans, post-humans, or AC possibly will possess a super intelligence referred to as qualia. Jianhua Xie, The Future: A Transhumanist Approach to Consciousness (forthcoming).

5 Tang et al.'s research unifies insect vision and vertebrate vision at the cognitive level.

6 In fact, the problem here is a little complicated. Paul MacLean suggests that only the paleo-mammalian brain of the triune brain has emotional function, and mammals have emotions. However, the emotion referred to here is broader in scope. Different emotions evolved at different times. The reptilian brain, the paleo-mammalian brain, and the neo-mammalian brain all correspond to different types of emotions. See also: https://psychology. wikia. org/wiki/Evolution_of_emotion.

Many vertebrates including birds and mammals demonstrate this intelligence.[7]

E: Self-awareness may be defined as the awareness of one's own activities, including the understanding of one's own physical condition and psychological characteristics, as well as the relationship between the self and others. Some of the higher mammals show partial self-awareness (Gallup 1970).

F: Rationality may be defined as the ability to understand subjective and objective existence and use knowledge and experience to solve problems. At present, only human beings possess intelligence. For example, only human beings have a semantic system as the carrier of intelligence (Huth et al. 2016).

G: Super-intelligence may be defined as the super consciousness ability beyond natural cognition of human beings, such as the qualia of five-dimensional space-time. Some scholars have posited that transhumans or post-humans will possess this super-intelligence (Jianhua Xie, The Future: A Transhumanist Approach to Consciousness, forthcoming).

This is a rough, but not rigorous, correspondence. There is an ongoing debate about the character of non-human consciousness. First, there is a lack of certain corresponding relations. For example, there is no suitable correspondence to amphibians. Second, there is a cross phenomenon related to the existing correspondence. At each level of bifurcation, there is evolution. For example, some birds—such as eagles—possess more accurate vision than natural cognition of humans. Third, different scholars may emphasize distinct correspondences. For example, some scholars believe that fish also have emotions (Tye 2017). However, the correspondence proves generally stable; the consciousness ability at each level is within a certain range. Later stages are more highly evolved than earlier ones. There is agreement that consciousness evolves from weak to strong with regard to capability, and from simple to complex. The changes in capability and content of consciousness can produce rationality or even super-intelligence.

In order to facilitate our discussion, A, B, C, D, E, F, and G are used to refer to the seven different levels of consciousness ability. A, B, C, D, E, F, and G refer to the consciousness ability of the subject to achieve and possess the levels of sensation, memory, emotion, intelligence, self-awareness, rationality, and super-intelligence respectively. Generally, when a subject has a higher level of consciousness ability, it also possesses the consciousness ability of the previous lower level. The remaining few evolved independently at each level of bifurcation. Therefore, when a subject has B, it means that it also has most of A; B contains most of A, C contains most A and B, D contains most A, B and C, and so on.

If the boundary of ACs classification is the consciousness ability of E, that includes self-awareness, weak ACs have the consciousness abilities of A to D and strong ACs demonstrate consciousness abilities from E to F. Weak ACs have achieved the consciousness ability of A with sensation and B with memory, but not the consciousness abilities of C that includes emotion and D that includes intelligence. The consciousness ability of E or F, which would indicate strong ACs have yet to exist.

Some theorists have argued that ACs will not have self-awareness and that strong ACs will never appear. A Cartesian approach would deny the ability of ACs to achieve consciousness. If strong ACs are to exist, then Descartes would see it as an automaton. According to Descartes, there are two very reliable standards for the identification of ACs and natural cognition of human beings. "The first is, that they could never use speech or other signs as we do⋯ And the second difference is, that although machines can perform certain things as well as or perhaps better than of us can do, they infallibly fall short in others, which means that we may discover that they did not act from

7 Evolution also exists when the evolutionary tree is bifurcated. For example, the sensation that some species of birds possess is much stronger than that of humans; for example, an eagle's vision is more accurate than that of humans. However, the abilities for each level prove relatively stable. Later stages of evolution are higher than earlier ones.

knowledge…" (Descartes 2003, p. 38). Descartes' material world was one based on mechanism. Descartes believed that non-human behaviors could be explained by purely mechanical aspects, without the existence of consciousness. The Cartesian approach embodies a principle of simplicity, the Occam's razor. Therefore, one should strive to describe the behavior of ACs through the simplest explanation. A modern version of Occam's razor in psychology was Morgan's Canon (Morgan 1894). The Canon would suggest that ACs' behavior could be explained without consideration for inner consciousness. Yet that should hold true for natural cognition of humans a well. However, natural cognition of human beings consistently exhibit complex and novel behaviors. This kind of behavior is not the result of simple response to stimulation, but the result of rational reasoning drawn from sensations of the world. Additionally, human beings have the language ability to express ideas. Some ACs' applications make some sounds, such as the voice assistant Siri. Descartes would treat the sound of these ACs as merely mechanically induced actions, not true language. Only human beings would be able to express their thoughts spontaneously with language.

According to Descartes' dualism, there are two mutually exclusive and endless parallel entities or attributes—matter and mind (Descartes 1983). Although all humans are closely connected with their physical bodies, humans cannot be reduced to their bodies alone. Humans are the same as their souls or the immaterial entities from which they are made. Descartes believed that the immaterial entities explained human's complex behavior and language. This entity is not needed for ACs' behavior. ACs are more likely to be a mobile machine than a rich mind.

With the development of modern science, people learned that Cartesian entity dualism was limited. However, many people still think that ACs, especially strong ACs, cannot be realized. Searle's biological naturalism represents a good example of this thinking. According to Searle's Chinese room argument, ACs would not be intentional; strong ACs would not be possible (Searle 1980).

I disagree with Searle. In my opinion, the basis of strong ACs is self-awareness. Self-awareness represents a high stage of consciousness as it implies cognition of the self and its world. Self-awareness is the understanding of self's body and mind as well as the self and non-self. It is the product of long-term evolution. There are two possible meanings. Given sufficient time and energy, ACs could evolve through a reliance on natural cognition of human initiative and passively emerge. Alternatively, the evolution of self-awareness will occur independently, manifested as AC and super intelligence.

The moral status of ACs should be determined according to the level of consciousness abilities. I propose four positions that express different levels of ACs moral status: no status, low status, equal status, and high status. No status refers to the absence of intelligence, self-awareness and rational thought. Low status refers to the presence of some emotions and sensations but the lack of a consciousness equivalent to natural cognition of humans. Same status refers to a self-awareness equal to natural cognition of humans. Finally, a high moral status refers to consciousness abilities that exceed natural cognition of humans.

2 No Status Proposition

If some ACs possess a consciousness ability that reflects A and B, but not the consciousness ability from the C to G levels, then it is not a moral obligation to care for ACs or to grant them a moral status. The reality of ACs is that it cannot become a moral subject due to a lack of self-awareness, moral understanding, and behavior. When people consider the impact of their own behavior, they do not need to take into consideration the rights and obligations of ACs, nor do they

need to be concerned about any impacts on ACs. This scenario represents a no status position.

There are four ways to argue that there is no moral status for the A-level and B-level ACs. First, there would have to be cognition in the A and B levels of AC. If an individual has moral rights and obligations with respect to another, it would be necessary to explain the relationship between them. Self-representation permits expression of one's pursuits, the defense of one's interests legally (McCloskey 1979). However, the A-level and B-level ACs cannot express and represent themselves. Unlike children, they are unable to do that. Therefore, ACs cannot enjoy rights, nor would they have a moral status.

Second, A and B-level ACs are not moral subjects. A and B-level ACs lack emotion, intelligence, self-awareness, and rationality. Only emotional, intelligent, self-aware, and rational subjects may enjoy a completely equal moral status. The moral subjects who have emotion, intelligence, self-awareness, and rationality can possess value and goodness. However, A-level and B-level ACs are not moral subjects. Therefore, they cannot obtain value and goodness in any true sense.

Third, there is no moral behavior in A-level and B-level ACs. Moral subjects can act on behalf of others. The individuals who sacrifice their own interests for other individuals should receive more care from those who benefit from the sacrifices. A-level and B-level ACs would not be in a position or even have the ability to sacrifice their own interests for others.

Fourth, the ACs are not the members of the moral community[8]. Membership in a moral community would be a necessary condition for a moral status equal to humans. Moral community is not defined according to the internal attribute of individuals, but according to the external social relationships among individuals. Moral subjects communicate in a meaningful way and establish shared economic, political, family, and individual relationships. These networks offer greater benefits to their members that allow these relationships to continue. These relationships constitute a moral community. A-level and B-level ACs cannot form a moral community.

The above four aspects explain ways in which A-level and B-level ACs do not have moral status. The no status position of A-level and B-level ACs explains why there is no need to show moral concern for them. When people consider the impact of their own behavior, they do not need to consider the pain or happiness of the ACs. Because ACs lack feelings, we do not need to consider the impact of actions on ACs. Only when a connection between humans and ACs has been established, and only when the connection would affect daily human livelihood, would it be necessary to show a moral concern for ACs.

The first, second and third aspects relate primarily to the individual, whereas the fourth aspect is relevant to society. We can learn from Aquinas' moral discourse for the individual and learn from Rawls' moral discourse for the society. The analysis of Aquinas' religious tracts and Rawls' contemporary contract theory inform the idea of a no status position. If the ACs lack the consciousness ability of rationality, Aquinas' would deny the moral status of the ACs. Aquinas held that only rational humans could decide their actions. The moral concern expressed in his works were only for human beings who pursued their own interests (ST Iallae. q. 1, a. 5). If some entities were unable to guide their own actions, other competent entities had the responsibility to do so for them. Therefore, the incompetent entities were treated as mere tools. Their existence was instrumental for the humans who used them, not for themselves. A-level and B-level ACs are similar in that they are unable to guide their own behavior; they serve merely as a tool for human action. Aquinas' position emerged from a religious view that God was the ultimate end of the universe. Knowledge and understanding of God could only be obtained through human wisdom. Only human beings had the ability to achieve this final end. All other things existed for human beings. They existed for the final end of the universe. From such a perspective A-level and B-level ACs would lack the rational ability

8 The moral community is the sum of all individuals and groups that should treat each other according to moral norms.

to understand God, and therefore would have no moral status.

To know God represents an example of abstract consciousness ability. A-level and B-level ACs lack the ability to know God. Moreover, ACs represent a tool, such as a table or chair. Aquinas' view of God as the basis of moral status, seems quite outdated. One cannot deny a moral status to an atheist. However, Aquinas' suggestion that the individual's consciousness ability as the basis of moral status is significant.

The morality of ACs rises from individual to society, an idea which is clarified with an understanding of Rawls' contemporary social contract theory. Rawls' theory would deny a moral status for A and B levels ACs. Social contract theory interprets morality as a set of rules. This set of rules is produced by the behavioral norms chosen by rational people under specific social conditions. The contemporary theory of the moral contract is fully embodied in Rawls' theory of justice. Rawls understood justice as fairness (Rawls 1999, Ch. 1). He argued that the operating rules in an ideal and just society are chosen by individuals who operate under a "veil of ignorance". The veil of ignorance refers to when people discuss the proper treatment of members of a society or an organization with different roles. Specifically, the ideal way to veil ignorance is to gather everyone under a veil and make an agreement that everyone does not know what role each individual will play in the society/organization after all parties leave the veil. The veil thus serves to hide one's situation from the individual. However, people are familiar with the general facts of human society. If individuals are largely self-interested, then they will choose the rules that are most beneficial to them. They do not know who they will become or what role they might play because they operate under a veil of ignorance. Therefore, they will avoid participating in a group whose interests are harmed by choosing rules that are not biased towards any individual or social class. They will choose the social rules to protect rational and autonomous individuals.

Based on Rawls' theory, if an individual is self-interested and does not know what social role they will have to play, they will seek just rules. The A-level and B-level ACs do not have self-awareness, whereas strong ACs and natural cognition of human beings possess self-awareness. Under a veil of ignorance, rational humans and strong ACs would be directly protected, while the A-level and B-level ACs would not. The no status position means that A-level and B-level ACs would not have moral status.

However, in some specific cases, the no status position ensures that the A and B level ACs would be indirectly protected. The moral concern for the ACs would occur only when there is a proper connection between humans and the ACs and when that connection would affect human existence. One example would be that ACs may be the property of human beings. Human beings are morally responsible for other humans' property. Another example would be the fact that human beings would avoid hurting others regarding their love for ACs. It would be a duty to avoid cruelty to the ACs. Our responsibility for the ACs is only indirect. Through the kindness of human nature that the ACs demonstrate, humans may indirectly take responsibility for ACs. Some person's morality may be reflected by their behavior towards ACs. If a human's abuse of ACs would exacerbate their cruelty toward other humans, then they should not abuse ACs. If a human's kindness to ACs would prove conducive to friendship among human beings, then they should be kind to the ACs. The no status position does not address the moral status of A-level and B-level ACs from the perspective of ACs' feelings.

3 Low Status Proposition

The C and D levels of consciousness include the capability of sensation, memory, emotion and intelligence. Therefore, the benefits for ACs directly impact an evaluation of its behaviors. However,

the C-level and D-level ACs lack self-awareness and rationality. Consequently, the benefits they perceive are not equal to natural cognition of human beings. When ACs reach the level of C and D consciousness, they possess a low moral status.

The concept of a low status position derives from a reading of Mill's work on utilitarianism (Mill 1998), Asimov's work on daily thinking (Asimov 1950), and Murdy's work on anthropocentrism (Murdy 1975). Mill's utilitarianism taught that we should act on behalf of the greater good. The calculation of the greater good depends on the sum of the happiness for each individual engaged in a behavior. The level of happiness is the sum of pleasure and pain. Pleasure may be represented as positive and pain as is negative happiness. The only purpose of behavior is the pursuit of happiness, so the promotion of happiness becomes the standard by which to judge all behaviors. What can increase the maximum value of happiness is good; the opposite is evil.

Utilitarianism would determine the moral status of ACs by determining the pleasure and pain experienced. One of the characteristics of Mill's work, especially as compared to Bentham's utilitarianism, is the hierarchy he presents between high spiritual pleasure and low sensory pleasure (Mill 1998). Such a hierarchy could suggest that ACs with different consciousness abilities have different levels of pleasure and pain, of good and evil.

A-level ACs have only sense sensation and behavior; they have no inner feelings of pleasure and pain. They only respond mechanically to external stimuli. Pleasure and pain exist in memory for the B-level ACs. A and B ACs can have pleasure and pain, but not happiness. Therefore, A-level and B-level ACs will not produce or generate good or evil.

C-level ACs may reflect pleasure and pain. The C-level ACs have emotions that permit them to like pleasure and dislike pain. The C-level ACs also possess the preliminary feeling of happiness, which is a feeling of satisfaction. D-level ACs have intelligent experiences of pleasure and pain. The D-level ACs are capable of acting to pursue pleasure and avoid pain. The D-level ACs have a preliminary understanding of happiness. Therefore, the ACs of C and D levels will produce preliminary happiness as well as preliminary good and evil.

E-level ACs possess an awareness of both pleasure and pain. The E-level ACs can know when they experience happiness. F-level ACs also are aware of pleasure and pain. Moreover, the F-level ACs can recognize and reflect on happiness. Therefore, those ACs may also produce intrinsic good and evil, like human beings.

G-level ACs can process the experience of both pleasure and pain. The G-level ACs may experience direct knowledge of natural cognition of human (such as pleasure and pain) in the first-person perspective. They also may describe, transform, and analyze the sense of pleasure and pain (direct knowledge) to gain greater knowledge (from a third-person perspective) through objectivity and science. The G-level ACs' intelligence is much more powerful than natural cognition of human beings in feeling and understanding happiness. The G-level ACs could produce more good and evil than human beings (Jianhua Xie (forthcoming) The Future: A Transhumanist Approach to Consciousness)

The ACs with C and D levels of consciousness only display emotions derived from experiences of pleasure and pain. Moreover, their experience and cognition of happiness are lower than natural cognition of human beings. Therefore, the moral status of ACs with C and D levels is much lower than natural cognition of human beings. This would represent an example of the low status position from the perspective of utilitarianism.

There are two defects in the ethics of utilitarianism. First, happiness should not be a measure of intrinsic good. Rather, good will should represent intrinsic good. In continuation of a proposition about same status, self-awareness plays a key role in the development of moral status. Second, utilitarianism could suggest not only the low status, but also a high-status position of ACs.

When ACs possess C and D level consciousness, people might respond with anthropocentrism

and other reactions similar to what Asimov presented in his work. Asimov's robot ethics is embodied in the book *I, robot* (Asimov 1950). The work describes the three laws of robots. Law I: robots must protect human beings. Law II: robots must obey human beings (based on Law I). Law III: robots should protect themselves (based on Law I and Law II). Laws I and Law III assume that the ACs have an ability to defend their own interests and that ACs have moral status. Laws I and II show that the benefits for ACs are not equal to natural cognition of human beings. Human interests remain the priority; the status of ACs is lower than that of human beings. The three laws of robots are similar to the low status position.

These three laws of robots mirror the underpinnings of anthropocentrism. It is natural that human beings evaluate their own interests more than other non-human beings (Murdy 1975). Anthropocentrism treats human beings as the center of the world. An anthropocentric view treats human interests and norms as the origin of value and the basis by which value should be assessed. Moreover, only humans can be the judges of value. These views pervade discussions about ACs without self-awareness to the present day. However, there are two major defects in the arguments of Asimov. The first defect is that there are serious logical loopholes in the three laws of robots. Even if Asimov increases the zeroth law, he will fall into the logic difficulty of infinite recursion. The second defect is that when ACs know how to protect humans or themselves; ACs have self-awareness. In this case, it is harmful to both ACs and human beings to adopt anthropocentrism.

4 Same Status Proposition

What would be the standard for complete moral status? For example, do ACs have rights and responsibilities? Do ACs have moral cognition and moral behavior? Are ACs moral subjects? The standard of complete moral status should be self-awareness. When ACs have the consciousness ability of E-level and F-level and, in particular, when ACs have achieved self-awareness, ACs should have the same moral status as human beings. Once ACs demonstrate self-awareness, they will be able to express free will, exhibit moral cognition, produce moral acts, exhibit behavior, and become a moral subject. In this case, we need a same status position. The concept of same status position derives from a reading of Kant's work on deontology (Kant 1956), Putnam's work on Multiple Realizability of mind (Putnam 1967), and certain transhumanist's work (Bostrom and Yudkowsky 2011).

Kant's deontology can provide an important basis for treating self-awareness as the standard of complete moral status. Moreover, it could represent the philosophical origin of the idea of a same status position. Kant put forward an influential moral theory. In his opinion, autonomy was the prerequisite for evaluating the behavior of moral subjects (Kant 1956). According to Kant's moral theory, permissible behavior is that in which all rational individuals would be willing to engage under certain circumstances.

Kant did not simply rely on a concept of autonomy. Nor did he think that autonomy was the natural basis of the moral status of all entities. Kant sought to provide relevant arguments for autonomy. The moral standard he established implied that an entity exhibited certain attributes that permitted a strong moral status, then the entity possessed a strong moral status. Kant believed that the foundation of autonomy was free will. Free will, especially good will, was the foundation of moral status.

Kant believed that the basic problem of morality was free will. An individual with self-awareness, was obligated to abide by a law of morality to act according to one's own will without the influence of external forces. The moral behavior of a rational entity with self-awareness had to be autonomous, not heteronomous. Moreover, it had to be based on obligations—with good motives

—and not on the fear of consequences.

The extension of Kant's theory to ACs would imply that moral status would depend on free will. The subjects with will (including strong ACs and human beings) would be driven by their own desires and produce behaviors. The subject with will could get rid of their desire and choose how to behave. This ability would be embodied in free will. If an entity possessed self-awareness, then it would have free will. Free will may entail both good and evil will. Good will could be recognized and consolidated in the process of evolution together with social and cultural norms. Kant argued that the only thing with intrinsic value was good will.

According to Multiple Realizability of mind, the same consciousness state can be experienced by different physical types (Putnam 1967). A correctly programmed computer and the natural cognition of human brain can achieve the same consciousness state. Some ACs reach the E level. E-level ACs possess self-awareness. Therefore, these ACs would have the potential for free will. The ACs could have good and evil will. Some individuals or groups of ACs would produce and strengthen good will for their own existence and development in the process of survival, learning, and evolution, whereas others would exercise evil will for their own existence and development. These ACs with evil will would go extinct and would be eliminated by nature through a process similar to the survival of the fittest. In the end, most of the ACs with self-awareness would produce and have good will.

If ACs do not achieve self-awareness, the question of ACs morality proves irrelevant. If ACs do achieve self-awareness and the ability of moral self-determination—like a human subject—the morality of ACs would conform to the definition of morality. Only when the ACs demonstrate an ability of E-level consciousness and self-awareness could ACs reach a moral status equivalent to that of human beings. The same status position refers to a complete and identical self-awareness and would represent the basis for the same moral status.

Some transhumanists, like Bostrom and Yudkowsky, argued that two beings with the same functionality and the same conscious experience that differ only in the substrate of their implementation and the means by which they came into existence, would have the same moral status (Bostrom and Yudkowsky 2011).

An argument for the same status also could be derived from Singer's rational utilitarianism. Singer uses marginal cases (such as the moral cases of children and the disabled) to criticize anthropocentrism and advocate for an egalitarian morality (Singer 2011). Singer disagrees that super intelligent ACs would necessarily prove detrimental to human beings. If a notion of inequality were to be extended to include ACs, that would have to treat the interests of all human groups. The equal consideration of interests would be to attach equal importance to the interests of all individuals affected by actions. Singer suggests that the measure of a moral subject would be sensation. I disagree with Singer that animals' experience of pleasure and/or pain defines their existence as moral subjects. Singer's standard for a moral subject was vast; it includes almost all animals and sentient beings. If the same criteria were to be applied to ACs, the scope of what entails a moral subject would become too broad.

5 High Status Proposition

According to the high-status proposition, if a product of ACs demonstrates higher consciousness attributes than natural cognition of human beings and shows super intelligence corresponding to the G-level, the ACs would have a higher moral status than human beings. The high-status position builds on Aristotle's work on virtue ethics, Nietzsche's moral philosophy and Huxley's work on trans- or post-humanism.

Aristotle's virtue ethics treats the judgment of character as the most basic moral judgment. According to Aristotle's worldview, the level of different things is determined by the different functions or characteristics they possess. The level of function or character determines the level of moral status (Aristotle 2009).

Virtue ethics focuses on the moral subject. The character of a moral subject is the driving force of ethical behavior. Virtue ethics treats the judgment of character as the most basic moral judgment. If a product of ACs were to have a higher level of G-level super intelligence than natural cognition of human beings, human beings should serve to meet the needs of G-level ACs. If the G-level ACs were to prove more useful than natural cognition of human beings, they should be considered more beneficial than humans and superior to them. Therefore, G-level ACs would have a higher moral status than human beings. Virtue ethics could lead one to this conclusion.

Although Aristotle could not put forward what is beyond human in his time, Friedrich William Nietzsche put forward that what is beyond human is the overman (Ubermensch) or superman (Müller-Lauter 1999, pp. 72–83). According to Nietzsche's moral philosophy, God is dead, and all traditional moral cultures need to be reevaluated. The overman could create a new value system with a new world perspective.

The overman portrayed a novel morality which differed from traditional and popular morality. The higher man would best reflect the will of life and possess the most vigorous creativity. Nietzsche's moral philosophy was intended to create a new value system that would save humanity from the degeneration of morality. He called for an overman that could save humans from tragic degeneration.

The overman would be representative of the highest value that human beings could and should create, the embodiment of heroic morality and development. Nietzsche believed that the ultimate goal of morality was an overman, not human.

Although Nietzsche's overman was not the G-level ACs, the G-level ACs would possess an overman's abilities: a witness to inequality among humans, societies and nations, a genius, the embodiment of truth and morality, the creator and keeper of norms and values. Similar to Nietzsche's overman, G-level ACs could become a moral ideal, one capable of legislating for human beings. In this sense, the G-level ACs would hold a higher moral status than human beings, corresponding to what I have referred to as "high status".

Transhumanism also provides a perspective on the high status proposed. Huxley argued that human life was uncivilized, barbaric and transient. Most humans endured great suffering. He envisioned the ability for humans to overcome their imprisonment, that they would be able to create an existence that was greater than what they had become (Huxley 1968).

The transhumanist or post-humanist thinkers advocated for the development and popularization of reliable advanced technology to greatly improve human physiology, psychology, and human existence (Elliott 2011; Huxley 1968). They studied the potential impact of emerging technologies on human beings and argued that humans would eventually transform into different entities (transhumans) or create different entities (post-humans) with significantly expanded capabilities. ACs with G-level super intelligence super consciousness abilities would represent such a transhuman or post-human existence.

There exist some very real dangers to such developments in ACs. The ACs with greater capabilities could subvert human existence as we know it. There could be serious impacts on morality, work, freedom, and everyday life. Human values, such as liberty, equality and fraternity, could be forever altered. Human civilization could devolve into barbarism. Moreover, a type of robot speciesism, racism, or even fascism could result. Future AC development initiatives demand efforts to avoid these risks.

6 The Conclusion of Moral Status

The examination of distinct schools of ethics illuminates considerations with regard to the possible state of AC's moral status. This paper uses classical ethics to analyze the different moral statuses and explains the characteristics of each type. Utilitarianism and virtue ethics serve to identify four types of moral status propositions. Deontology provides a means to deduce the propositions of no status and same status.

When ACs arrive at different levels of consciousness, four different moral positions result. ACs that possess sense and memory, but not emotion, intelligence, self-awareness and rationality, are the A and B ACs that do not have moral status. ACs that demonstrate emotion and intelligence, but not self-awareness and rationality, are the C and D ACs that have a lower moral status than human beings. ACs that have self-awareness and rationality are the E and F ACs that have the same moral status as human beings. The G ACs have super-intelligence and a higher moral status than human beings. The first technology path is the present reality and the last three paths are the future reality.

The no moral status and the same moral status ACs are more reasonable, whereas the low moral status and the high moral status ACs are dangerous or even harmful to self-aware human beings and artificial cognition. A, B, C, and D ACs do not have moral status. E, F, and G ACs have the same moral status as human beings. At present, ACs only reach the A and B levels, with no moral status. When ACs reach the E level or above in the future, they should have the same moral status as human beings.

Funding

"Philosophical Study on the Challenge of Artificial Cognition to Natural Cognition" (21&ZD061), a major project of the National Social Science Foundation of China.

References

[1] Aquinas T. (1975). Summa contra gentiles (A. C. Pegis, J. F. Anderson, V. J. Bourke, & C. J. O'Neil, Trans.). Notre Dame: University of Notre Dame Press.

[2] Aquinas T. (1981). Summa theologiae (Fathers of the English Dominican Province, Trans.). Allen: Christian Classics.

[3] Aristotle (2009). *The Nicomachean ethics* (D. Ross, Trans.). Oxford: Oxford University Press.

[4] Asimov I. (1950). I, robot. New York: Gnome Press.

[5] Bostrom N. (2018). The interests of digital minds. https://nickbostrom. com/papers/interests-of-digital-minds. pdf. Accessed 7 October 2019.

[6] Bostrom N., Dafoe A., & Flynn C. (2018). Public policy and superintelligent AI: A vector field approach. https://pdfs.semanticscholar.org/9601/74bf6c840bc036ca7c621e9cda20634a51ff.pdf. Accessed 7 October 2019.

[7] Bostrom N., & Yudkowsky E. (2011). The ethics of artificial intelligence. http://www. doc88. com/p-1496981855025. html. Accessed 7 October 2019.

[8] Descartes R. (1983). Principles of philosophy (V. R. Miller, & R. P. Miller, Trans.). Dordrecht: Springer.

[9] Descartes R. (2003). Discourse on method and meditations (E. S. Haldane, & G. R. T. Ross, Trans.). Mineola: Dover.

[10] Elliott C. (2011). Enhancement technologies and the modern self. Journal of Medicine and Philosophy, 36(4), 364–374. https://dx.doi.org/10.1093/jmp/jhr031.

[11] Ford J. K. B., Ellis G. M., Matkin D. R., Balcomb K. C., Briggs D., & Morton A. B. (2005). Killer whale attacks on minke whales: Prey capture and antipredator tactics. Marine Mammal Science, 21(4), 603–618. https://dx.doi.org/10.1111/j.1748-7692.2005.tb01254.x.

[12] Gallup G. G. (1970). Chimpanzees: Self-recognition. Science, 167(3914), 86 – 87. https://dx. doi. org/10.1126/science.167.3914.86.

[13] Holden C. (1979). Paul MacLean and the triune brain. Science, 204(4397), 1066–1068. https://dx.doi.org/10.1126/science.377485.

[14] Hunt G. R. (1996). Manufacture and use of hook-tools by New Caledonian crows. Nature, 379(6562), 249–251. https://dx.doi.org/10.1038/379249a0.
[15] Huth A. G., de Heer W. A., Griffiths T. L., Theunissen F. E., & Gallant J. L. (2016). Natural speech reveals the semantic maps that tile human cerebral cortex. Nature, 532(7600), 453–458. https://dx.doi.org/10.1038/nature17637.
[16] Huxley J. (1968). Transhumanism. Journal of Humanistic Psychology, 8(1), 73 – 76. https://dx. doi. org/10.1177/002216786800800107.
[17] Kant I. (1956). Groundwork of the metaphysics of morals. New York: Harper Torchbooks.
[18] McCloskey H. J. (1979). Moral rights and animals. Inquiry, 22(1 – 4), 23 – 54. https://dx. doi. org/10.1080/00201747908601865.
[19] Mill J. S. (1998). Utilitarianism. New York: Oxford University Press.
[20] Morgan C. L. (1894). An introduction to comparative psychology. London: Walter Scott.
[21] Müller-Lauter W. (1999). *Nietzsche: His philosophy of contradictions and the contradictions of his philosophy* (D. Parent, Trans.. Urbana: University of Illinois Press.
[22] Murdy W. H. (1975). Anthropocentrism: A modern version. Science, 187(4182), 1168 – 1172. https://dx. doi. org/10.1126/science.187.4182.1168.
[23] Putnam H. (1967). Psychological predicates. In W. H. Capitan, & D. D. Merrill (Eds.), Art, mind, and religion (pp. 37–48). Pittsburgh: University of Pittsburgh Press.
[24] Rawls J. (1999). A theory of justice. Cambridge: Belknap Press.
[25] Searle J. R. (1980). Minds, brains, and programs. Behavioral and Brain Sciences, 3(3), 417 – 424. https://dx.doi.org/10.1017/s0140525x00005756.
[26] Singer P. (2011). Practical ethics (3rd ed.). Cambridge: Cambridge University Press.
[27] Tang S., Wolf R., Xu S., & Heisenberg M. (2004). Visual pattern recognition in Drosophila is invariant for retinal position. Science, 305(5686), 1020–1022. https://dx.doi.org/10.1126/science.1099839.
[28] Tye M. (2017). Do fish have feelings? In K. Andrews, & J. Beck (Eds.), The Routledge handbook of philosophy of animal minds (pp. 169–175). London: Routledge.
[29] Wei Y. D. (2019). Adaptive representation: A unified category of natural cognition and artificial cognition. Philosophical Research, 09, 114–124.
[30] Williams F. E., White D., & Messer W. S. (2002). A simple spatial alternation task for assessing memory function in zebrafish. Behavioural Processes, 58(3), 125–132. https://dx.doi.org/10.1016/s0376-6357(02)00025-6.
[31] Ziesche S., & Yampolskiy R. V. (2019). Do no harm policy for minds in other substrates. Journal of Evolution and Technology, 29(2), 1–11.

About the Author

e-mail: geshilao@163.com