

Article

Transhumanism as a Challenge for Islamic Law

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Abstract: The Islamic legal tradition teaches that true knowledge and practice are conveyed by God and his Prophet Muhammad through revelation. The discipline that engages with these revelatory sources, derives norms and rules from them, and extends them to address new and related issues is known as Islamic law. Within this discipline, religious scholars reflect on the legitimacy of believers' actions and categorize them accordingly. Societal and technological advancements are influencing this process of norm derivation. For example, medical technologies enable the treatment of diseases through medication and organ transplantation. As believers seek to live in accordance with the principles of their religion, these developments require ethical reflection to determine under what circumstances it is justified to follow them. Transhumanist enhancements, for instance, present a challenge for religious reflection as they question the nature of human existence and life as experienced throughout history. After outlining the main principles and ethical foundations of Islamic law, this article will explore the Islamic legal concepts of responsibility, physical integrity (*hurma*), and the body in relation to transhumanist challenges. The discussion will demonstrate that the bodily experience and existence of humans is a core aspect of the systematic framework of Islamic law. The notion of transcending the human body challenges the very foundation of Islamic law, including key rituals like prayer, fasting, and pilgrimage. On the other hand, Islamic law has a flexible and dynamic structure that does not automatically yield a positive or negative evaluation of transhumanist enhancement. It allows for interdisciplinary evaluation, which I will illustrate through three hypothetical cases of transhumanistic enhancement. This approach will show that Islamic law is influenced by philosophical, theological, ethical, sociological, medical, and biological reflections on transhumanism, allowing for a plurality of perspectives.

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1. Introduction

As Muslim philosophers such as Ibn Rushd (Averroes, d. 1198) have stated, the Islamic tradition holds that God and his Prophet Muhammad convey true knowledge and practice to humankind through revelation. The purpose of revelation is to guide humans toward happiness and to help them avoid actions that lead to misery and hardship, both in this life and the hereafter (Averroes 2008, pp. 23–25). For Muslim scholars, following the religious sources—the Quran and the Sunna (the transmitted traditions of the Prophet Muhammad)—it is essential to develop a normative classification for actions that promote happiness and benefit, and to avoid those that cause harm and hardship. In response to this need, scholars eventually developed the systematic discipline of Islamic law (*fiqh*), which addresses the normative classification of believers' actions. There are various definitions of Islamic law, but the most common is that it is the knowledge of religious rulings (*al-ahkām*) derived through *ijtihad* (legal reasoning) from the religious sources (*al-adilla al-shar'iyya*). From the perspective of a Sunni scholar, the primary sources of Islamic law are the Quran, the Sunna, consensus of the scholars, and legal analogy. Secondary sources, which vary according to different schools of law, have also a decisive role for the evaluation of human

actions (Rohe 2015, pp. 54–93). Within Islamic law, scholars developed a set of normative categories to determine religiously justified conduct. According to these categories, actions are classified as obligatory (*wājib*), recommended (*mandūb*), permissible (*mubāh*), frowned upon (*makrūh*), or forbidden (*ḥarām*) (Kamali 2003, pp. 413–431). Be it Sunni or Shi'i, the criteria for the evaluation and subsumption under these five normative categories is mainly dependent on the religious sources Quran and Sunna and on some general principles (*qawā'id*), like “Necessities allow prohibited actions to be carried out” or “In principle, it is permitted to carry out an action as long as the opposite is not proven.” Muslim scholars and believers must ask for the legitimacy of their daily life and religious practice, whether there is something that prohibits the very action that is subject to religious evaluation. The evaluation for concrete inquires is called *fatwa*, i.e. a recommendation for actions drawn up by scholars like a legal opinion (Rohe 2015, pp. 94f.). This is why Muslim scholars and believers must engage in discussions about recent developments, whether they concern technological or societal advancements. Transhumanism and related issues, such as the enhancement of human existence, bioethics, medical ethics, and developments in artificial intelligence, are therefore subjects of study in Islamic law and discussions among religious scholars.

Regarding the state of the art, since this is a new field for Islamic law, little has been done so far on the topic of Transhumanism and its relationship with Islamic law. However, there have been some attempts to critically engage with subjects related to Transhumanism, such as Artificial Intelligence from an Islamic legal perspective, though these efforts tend to be general and even superficial (Rifai 2024; Lusiana et al 2024). The picture is different when we look at studies that relate transhumanistic ideas to Islamic theology in general;¹ we find studies dealing with specific questions and aspects of Transhumanism in this regard as well (Kam 2023, 2024). The article that deals more in detail with the question of the usage of AI from an Islamic legal perspective is Eziuddin Elmahjub's (2023). Elmahjub analyzes the use of AI in relation to Islamic ethical considerations within Islamic law and legal theory. Additionally, some studies explore whether AI can be used to issue religious-legal opinions (*fatāwā*, sg. *fatwā*) for Muslim believers who seek guidance on whether their actions are religiously legitimized. For instance, Sofia Tsourlaki (2022) examines this question and highlights potential negative effects of using AI to determine religious-legal opinions. She points out the risk of oversimplified, unified solutions to complex questions, despite Islamic law offering a wide range of answers to legal cases. This approach could, for example, overlook the crucial factor of social circumstances.

We see further normative ethical approaches to subjects related to Transhumanism e.g. at the Research Centre for Islamic Legislation and Ethics at the Hamad Bin Khalifa University, for instance, in Mu'tazz al-Khaṭīb's (2019) work on genomics. There are further attempts that call on regarding the overall objectives of the Sharia (*maqāṣid al-sharī'a*) (Rifai 2024; Lusiana et al 2024), which are – among others – the protection of life, religion, reason, progeny and property when dealing with questions that we can relate to Transhumanism. The overall objectives of Sharia were developed by premodern scholars who sought to expand substantive law by deriving norms aimed at protecting the aforementioned purposes of law (Opwis 2010). Modern scholars have built upon these foundations, extending their scope and broadening the objectives to include abstract ideas beyond the five originally mentioned, such as religious freedom, equality, justice, and human rights. Since the ethical interpretations of Islamic legal theory allow scholars to engage with ethical questions related to e.g. Transhumanism, bio and medical ethics (Sachedina 2009), contemporary approaches see in Islamic law with regard to its ethical structure either a deontology (Vishanoff 2020; Elmahjub 2021) or a consequentialist/utilitarian ethics (Hallaq

¹ See for instance the Special Issue on Transhumanism and Artificial Intelligence of the journal *Ilāhiyat Studies: A Journal on Islamic and Religious Studies* 14 (2023). This issue is available at <https://ilahiyatstudies.org/journal/issue/view/36> (accessed online November 1st 2024).

1997, pp. 214–231; Elmahjub 2021). Deontology refers to the form of normative ethics according to which the binding nature and quality of moral actions and judgments are derived from the obligation to certain behaviors or maxims of action, in principle independent of prior purposes and possible consequences of action (Fahrenbach 1972). Consequentialism – or utilitarianism – is the opposite: It is a form of purpose-oriented (teleological) ethics and basically, it states that an action is morally right if it maximizes the aggregated total benefit, i.e. the sum of the well-being of all those affected (Hügli and Han 2001).

These differing approaches are the most obvious concepts to refer to when dealing with more recent developments such as Transhumanism. They allow to reflect with regard to abstract ideas of justice, protection of life etc. on transhumanistic approaches and developments. However, they disregard important basic assumptions of Islamic law related to human existence, which I want to highlight in this article. Having outlined these preliminaries that emphasize the need for Islamic legal reflection on Transhumanism and related subjects, I now turn to the main question of this article: Which concepts of Islamic jurisprudence and theology are relevant for engaging with issues related to Transhumanism, particularly the idea of enhancing human capabilities? The article at hand is more of an exploratory endeavor than a systematic discussion of transhumanistic concepts in relation to Islamic jurisprudence. It is an ongoing process and a desideratum to fill within this research field. The present article is therefore not a critical discussion of the main assumptions of Transhumanism, since they are more related to Islamic Philosophy and Theology (*kalām*). By referring to the idea of enhancement of human capabilities within Transhumanism, I want to discuss the main principles of Islamic law regarding human existence and the evaluation of the actions of the believers. Thus, I will deal with the ethical basis and universal legal principles of Islamic law, the question of legal responsibility, and the concept of physical integrity (*hurma*) and body. Before diving into these discussions, I would like to make some preliminary remarks on enhancement in the context of Transhumanism, to clarify in which framework I will address the aforementioned notions and concepts.

2. Preliminary Remarks on Transhumanistic Enhancements

Transhumanism, at its core, can be circumscribed as a philosophical and intellectual movement that advocates for the enhancement of human capabilities through the application of science and technology (Ferrando 2018; Sorgner 2020). It believes in the possibility and desirability of fundamentally altering the human condition by using various tools and techniques, such as biotechnology, nanotechnology, artificial intelligence, and cognitive science. The idea of enhancing human capabilities encompasses a wide range of possibilities, including cognitive enhancement, which involves improving human cognitive abilities such as memory, intelligence, attention span, and creativity. Examples include nootropic drugs, brain-computer interfaces, and cognitive training programs as well as AI-supported knowledge generation. The physical enhancement on the other hand allows expanding physical strength, endurance, sensory perception, and overall health. Examples range from prosthetic limbs and exoskeletons to genetic engineering for muscle growth and enhanced senses. One important issue among discussions on Transhumanism is longevity. Transhumanists often seek ways to extend human lifespan and health span, aiming for radical life extension and even immortality. Strategies may involve regenerative medicine, genetic engineering, and advanced healthcare technologies. Enhancing human perception beyond natural capabilities, such as infrared vision, ultrasonic hearing, or even new senses altogether is also part of transhumanistic ideas (Fukuyama 2002; Bostrom and Sandberg 2009; More and Vita-More 2013; Bostrom 2014).

These examples illustrate the diverse ways in which transhumanists envision enhancing human capabilities. However, ethical considerations regarding safety, equity, and the potential consequences of these enhancements are crucial aspects of the discourse

within transhumanist as well as Islamic theological and legal thought. Since ethical considerations are crucial for dealing with transhumanistic concepts and ideas, Muslim scholars, religious authorities and theologians have to engage with related question in order to find ways to deal with it within the boundaries of the Islamic tradition. It is therefore worth looking at the ethical basis and universal legal principles of Islamic law, the discipline that engages both with questions of the religious status of the actions of Muslims and question of ethics and morality.

3. Ethical Basis and Universal Legal Principles of Islamic Law

A well-known discussion on the ethical basis of Islamic law can help us understand, how Muslim scholars, who work on Islamic law, can engage with transhumanistic subjects and developments. According to the Sunni majority view—simplified and summarized—, God and his Prophet determine what is good and what is evil. We can call this view roughly as theistic voluntarism. Thus, human’s knowledge on the consequences of their actions and their nature of being good and evil is dependent on assessment of the religious sources. However, there are competing approaches to this voluntarism: the Shi’i as well as the Mu‘tazilī tradition contradict this view and state that humans are capable to grasp the nature of actions as being good and evil, since for them, the good and evil exist regardless of the existence of God’s message (Fakhry 1994; Reinhart 1995). The Shia is a movement that upholds “a privileged position of the Family of the Prophet (*ahl al-bayt*) in the political and religious leadership of the Muslim Community” (Madelung 2012) and differs from the majority of the Muslims, the Sunnite, in the regard that descendent from the family of the Prophet, so called Imams, have access to “hidden knowledge” and can discover the truth and judge accordingly. Sunnis, however, do not accept such a religious authority and form an interpretative community of religious experts/scholars, who have the duty to interpret the religious sources and develop theological concepts, dogmas, and ideas (Juynboll and Brown 2012). The Mu‘tazilī tradition, the name of a religious movement founded in Iraq in the 8th century that became, like the Sunni and Shi’i tradition, is one of the most important theological schools in Islamic history. Mu‘tazilī scholars had a rationalistic understanding of Islamic theology and influenced both the Sunni and Shi’i tradition (Gimaret 2012). Although the Mu‘tazilī tradition did not exist after the 12th century independently – much of their ideas survived in various traditions within the Sunni and especially Shi’i tradition – there have been some Muslim theologians in modern times who wanted to revive ideas of the Mu‘tazila (Hildebrandt 2007). Neither the Shi’i nor the Mu‘tazilī tradition developed a rationalistic legal theory although following a rationalistic theology. Some Sunni circles tended also to rationalistic views; they also did not develop a legal theory independent from the religious sources. However, the intensity of the reference to the religious texts within these schools can vary (Gleave 2013). Thus, for Muslim scholars, evaluating whether the aforementioned enhancements are permitted or prohibited requires reliance on religious sources and the principles derived from them. This approach led to text-centered hermeneutics (Kurnaz 2017), a concept whose description would go beyond the scope of this article.

This approach, however, led mainly to an ethical structure of Islamic jurisprudence, at least for the Sunni tradition, that can be best described as deontology. Deontology is a moral philosophy where the morality of an action should be based on whether that action itself is right or wrong under a series of rules and principles, rather than based on the consequences of the action. There are also attempts that focus on the outcome of an action based on the principle that Islamic law should bring out benefits (*maṣlaḥa*) and avert harm (*mafsada*) (Elmahjub 2021). In the modern period, Muslim scholars plead for such a utilitarian approach based on this idea (Hallaq 1997, pp. 214–231). Contemporary scholars argue about abstract ideas like protection of family, justice, equality, and justice (Opwis 2005) so that they can evaluate the religious practice of Muslims that changes with the technical development. Regarding the overall objectives of Islamic law and the protection of human life, it is generally possible for Muslim scholars to argue in favor of

transhumanistic enhancement, provided its goal is the improvement of human life. Protection of and improving human life belongs to the so-called “five necessities” (*al-ḍarūriyyāt al-khamsa*, Opwis 2005, p. 188, and footnote 23) of human existence, which allows to evaluate transhumanistic developments positively and categorize them as permissible in general.

However, it is not necessary to follow a consequentialist understanding of Islamic ethics in order to argue in favor of transhumanistic enhancement. Scholars can focus on the universal principles of Islamic law, which could be interpreted in the sense of the deontological structure of Islamic law. Among these principles, as mentioned above, we find the protection of life, religion, reason, progeny, and property. As soon as transhumanistic enhancements do not contradict these objectives and further juristic principles and precepts (*qawā'id*) (Khadiga 2014), Muslim scholars can evaluate enhancements of human existence positively and as permissible. Legal principles, which scholars derived systematically and inductively from the vast legal tradition of substantive law (*furū' al-fiqh*), allow such an evaluation. There are at least five essentials better say five universal principles of Islamic law, which are the core of each religious consideration. These principles are: 1) Acts are measured by what they are used for (*al-umūr bi-maqāṣidihā*); 2) Doubt cannot override certainty (*al-yaqīn lā yazūlu bi-l-shakk*); 3) Hardship brings about simplicity (*al-mashaqqā tajlib at-taysīr*); 4) Damage/Harm should be removed (*al-ḍarar yuzāl*); 5) Custom is determinative (*al-'āda muḥakkama*) to evaluate the permissibility of an action (Musa 2014, p. 331). These principles enable scholars to evaluate specific questions raised by the concept of transhumanistic enhancement, allowing them to clarify and assess the actions under scrutiny. They help to concretize the overarching principle that, according to Islamic law, every action is permissible unless proven otherwise, known as the concept of *ibāḥa aṣliyya*. Therefore, there is no “neutral” space in daily life when it comes to the religious evaluation of believers’ practices; every action is either permissible (and thus not sinful) or forbidden, if indicated by religious sources or legal principles and precepts.

Based on these principles, Muslim scholars can evaluate enhancements in relation to transhumanistic concepts. Therefore, Islamic law relies on philosophical, theological, and normative ethical considerations to assess transhumanistic ideas. Thus, every legal evaluation should be part of interdisciplinary research or at least based on knowledge from different disciplines. This compatibility of legal theory with other disciplines allows for an Islamic legal evaluation that is very flexible. However, there are further basic concepts that concretize the normative assessments based on these ethical principles; this is legal responsibility (*taklīf*) that is related to the concept of body and its integrity in the Islamic legal tradition.

4. Legal Responsibility

The conditions for legal responsibility (*taklīf*) and legal capacity (*ahlīya*) or the right of personality (*dhimma*) are controversially discussed in the legal literature (Müller 2022, pp. 340–351; Hallaq 2009, pp. 226f.). Scholars agree that human beings are, first of all, free from any obligation. This is the so called “Fundamental freedom from obligations” (*barā'at al-dhimma*; Bardakoğlu 1992). Obligations such as full religious responsibility and legal capacity must therefore be justified separately. For instance, scholars agree that free men who are of legal age (*bāligh*) and of sound mind (*'āqil*) have full legal capacity to act (called *ahliyyat al-adā'*) and an unrestricted religious responsibility. The scholars saw biological indications and bodily developments as a point of reference for determining the age of legal and religious responsibility: usually the onset of puberty which they relate to the beginning of menstruation for girls and the ability to ejaculate for boys. Scholars set the minimum age at 9 years for girls and 12 years for boys, otherwise 15 for both if these bodily experiences do not occur. In the case of women, legal responsibility is sometimes limited, for instance due to menstruation, which leads to ritual impurity, which can be solved by ritual purification after the end of the menstruation. Not only women are

affected by ritual impurity; for instance, men are in the state of ritual impurity after ejaculation or sexual intercourse; the latter applies to women as well. Both women and men are equally affected by ritual impurity due to factors such as urination, defecation, or flatulence. All these states can be removed by ritual purification, e.g. washing the hands, arms including the elbows, the face, and feet and wiping a part of the head with moist hands (for an overview see Kurnaz 2022). Ritual purity is required for acts of worship especially; it has no direct implication for the daily life of the believers. There are further restrictions for the legal capacity of women according to premodern Islamic law in witness status law, the most of which are changed today (Rohe 2015). These restrictions for women are thus historically bound and do not play a role for our research question. For us, it is important to note that all adult believers have the same legal capacity and religious responsibility, unless there are conditions such as mental or physical disability that restrict this capacity and responsibility. The main challenge with transhumanistic developments, such as the possibility of transcending the human body and replacing it with other forms or avatars that do not meet the aforementioned requirements for bodily development, is that how religious responsibility and legal capacity can be argued if the aforementioned bodily developments are completely absent.

The issue of religious legal responsibility and capacity has further important aspects for today's engagement with transhumanistic subjects, like the idea of basic rights that should be protected and are justified by human existence, called *ahliyyat al-wujūb*, which we can translate as necessary or basic capacity. This capacity gives e.g. embryos in the womb of their mother the right to inherit as a family member if someone passes away in the family (Hallaq 2009, p. 227). This capacity gives rise to basic rights that should be protected, known as *ʿiṣma* (lit. "being-protected") in some traditions within Islamic law (e.g. Ḥanafī law). *ʿiṣma* guarantees human beings, regardless of their religious identity, the fundamental right of life and property (Johansen 1999). These rights are justified by the fertilization of the oocyte and the ensoulment of the zygote, which is calculated up to the 16th week of pregnancy. The ensoulment or fertilization establishes fundamental rights for the embryo, such as the right of a share in the inheritance. Here again, if procreation, as we know it, can be transformed through transhumanistic enhancement and sexuality no longer plays any role (Kartal Soysal 2023), how can scholars argue for these basic rights? Since legal responsibility relates to fertilization of the oocyte and the creation of the embryo and birth, the question arises as to how the reproduction of humans, genetic engineering, and other forms of procreation can be dealt with and how this affects the idea of protection of life, progeny and how this affects the concept of responsibility. It is, for instance, unclear whether robots that are controlled by humans or even AI, which can imitate human actions or even think by themselves, reflect, and learn independently are considered to be fully legally responsible.

The idea of legal and religious responsibility can be related to the dichotomy of the material body and immaterial soul of humans; the latter, for instance, is challenged by transhumanistic concepts (Doko 2023). Looking back at premodern scholarship, scholars sometimes link this discussion with philosophical ideas about mind and soul. For instance, the Ottoman scholar Mulla Khusraw (d. 1480) follows Neoplatonist ideas of intellect and soul and relates them to the concept of legal responsibility in Islamic legal theory. For Mulla Khusraw, reason is "the faculty of the soul which enables us to gain knowledge and to act according to our deliberations" (Rudolph 2019, p. 86). He then divides the intellect into theoretical (*nazarī*) and practical (*ʿamalī*). Theoretical intellect has four different stages that correlate with the state of the soul. The first is the "material intellect" (*ʿaql hayūlānī*); this is the rational soul at the beginning of its created nature. The second stage is the "dispositional intellect" (*ʿaql bi-l-malaka*), i.e. the soul that can grasp knowledge objects that are self-evident. It can grasp the "laws of thought" and attain further theoretical knowledge. The third stage is "actual intellect" (*ʿaql bi-l-fiʿl*), "the intellect that has acquired theoretical knowledge and has access to it whenever it wants but does not consider it at the moment" (Rudolph 2019, p. 87). The fourth stage is

“acquired knowledge” (*‘aql mustafād*), “coming about when the intelligible forms are actually present in the soul” (Rudolph 2019, p. 87). For Mulla Khusraw, the two stages of material intellect and dispositional intellect are required in order to argue for legal responsibility (*ahliyya*). To be a legal subject and have the capacity to act, one must, Mulla Khusraw says, presuppose the capacity to decide between good and bad and act accordingly. For him, this ability to reflect demonstrates that humans understand the basic laws of thought, can acquire knowledge based on these laws, and can reflect on their own actions in terms of moral obligations (Rudolph 2019, pp. 86–88). Mulla Khusraw’s approach, which is admittedly uncommon in legal theoretical texts, presupposes a dichotomy between the material body and the immaterial soul. However, it is disputed among scholars whether the soul should be considered immaterial or material. Enis Doko (2023), for instance, analyzed this common dichotomy within Islamic theology (*kalām*) and philosophy (*falsafa*). He states that in general, Muslim scholars and philosophers accept the dichotomy of the material body and the immaterial soul. Doko, however, argues that it is not a theological necessity to hold to the dichotomy of material body and immaterial soul. For him, materiality does not have to be reduced to the body; it can be assumed for the soul or spirit theologically, which is, for him, a requirement for the engagement with transhumanist ideas since in Transhumanism, there is no room for the notion of an immaterial soul. Doko wants therefore to provide a philosophical-theological foundation for the existence of conscious and intelligent machines and their potential compatibility with Islamic beliefs.

What does the latter question mean for legal responsibility? According to Islamic law, legal responsibility is, as we have seen above, closely tied to bodily experiences and existence—it ends when a person dies. Therefore, the question of the soul’s materiality does not directly impact the system of Islamic law. However, such a decision raises other issues related to eschatology: According to religious sources, the resurrection will be experienced bodily in the hereafter. Islamic philosophers, however, argue that resurrection is reduced to the immaterial soul (Al-Ghazālī 2000, pp. 208–25). Thus, the question of the aforementioned dichotomy raises various theological issues. Furthermore, when considering the realization of the idea of longevity, we encounter additional questions regarding legal responsibility. Let us assume that humans can transcend the body and transfer their consciousness, mind, or soul to a non-bodily avatar. The question of legal responsibility and personhood remains unresolved: Am I a new person, and am I accountable for my actions in the past, present, and/or future? Let us also assume that a person has the choice to remain in their body but later decides to transcend it; what about the life they lived under human-body conditions? Am I responsible for actions I could have taken had I chosen to transcend the body earlier? Furthermore, the religious sources Quran and Sunna do not understand soul (*nafs*) as separate from the human body (Homerin 2006); it is unclear whether the separation of the soul and its transfer to an avatar is, theologically speaking, possible, and what consequences this would entail. Does it result in the creation of a new person or being? What happens to the freedom of action and mental faculties of this new being if it is decoupled from the concepts of soul, spirit, or mind and reduced only to neuronal connections? Who holds the capacity to act—the being itself or the creator of this new being, whoever that may be? And if one transcends the human body, what does this mean for laws related to bodily experience and performance, such as religious rituals? The latter question leads us to discuss another basis of Islamic law: the human body and its physical integrity.

5. The Human Body and its Physical Integrity (*ḥurma*)

The potential “triumph” over physicality by transferring a person’s spirit, soul, or mind to a non-corporeal avatar/substance would have sincere consequences for Islamic law since many rulings in Islamic law are related to bodily existence. For instance, Muslim believers are obliged to perform a strictly ritualized prayer five times a day, called *ṣalāh*. This prayer includes standing, recitation of the Quran, bowing down, prostration (*sajda*),

and kneeling down. A prerequisite for this prayer is ritual purification (*tahāra*), since different daily activities can lead to ritual impurity, like defecation, urination, and sexual intercourse – all these are *not* sinful acts. These states do not hinder day-to-day practice; however, it does affect rituals like prayer. Thus, ritual purification, which is called *wuḍūʿ* (“minor ablution”: washing hands till the elbow, washing one’s face and feet, and wiping the hair with wet hands) and *ghuṣl* (“great ablution,” which can be shortly described as taking a bath) is needed in order to perform prayer. Both for ablution and prayer, believers must have the intention (*niyya*) to perform them as obligatory ritual acts. Further, physical impurity can hinder performing the prayer, like soiled clothing or a soiled prayer room (Hallaq 2009, pp. 227–31). Once humans transcend their physicality and body, the question of ritual purity would become obsolete, with consequences for the five daily prayers, for which ritual purity is a prerequisite. Muslim scholars commonly accept that if the cause for a norm does not exist, the corresponding regulation does not exist either. Does this then mean that Muslim believers would no longer be required to pray or purify ritually? Or could it be argued that ritual purity is no longer a prerequisite for “transhumans”? What about these “transhumans” in a new “shell” with a human mind? Does having a human mind obligate one to pray, but without ritual purification? Since ritual purity can be understood as a symbolic act (Reinhart 1990), should its performance be reinterpreted, or should the new body be ritually washed for each prayer, even if it has not been involved in actions that lead to ritual impurity? This approach would require the development of new hermeneutics, epistemology, and legal philosophy within Islamic law, since rituals in the existing Islamic legal tradition do not directly correspond to a *ratio legis* that determines ritual practice and thus cannot be reinterpreted in new ways.

Looking at a further aspect of the concept of body in Islamic law, we see that it is based on the binary system of men-women; however, it also recognizes the third gender, the “intersex” (called *khunthā*). Although premodern Muslim scholars have an idea of a third gender, Islamic law does not transcend heteronormativity (Katz 2017). Today, this binary is being questioned and criticized, however, there is no legal concept of non-gendered legal system that functions without any kinship or family relations that deals e.g. with inheritance law, punishment, marriage, and divorce. These laws are constantly based on bodily relations and physicality, which also has an effect on clothing ethics and rules of social conduct. Although premodern Islamic law entails detailed rulings regarding corporal punishment and payment for blood money in cases like homicide (Hallaq 2009, pp. 308–23), modern states with Muslim majority population (with few exceptions) do not rely on traditional Islamic law in Penal law (Rohe 2015, p. 333). Looking at rulings related to clothing, we see that they are especially important for the correct performance of the prayer, as there are different requirements of body covering for men and women when performing it (Ibn Rushd 2000, pp. 125–28). The same is true for the pilgrimage as part of ritualized worship in Islamic law (Hallaq 2009, pp. 236–38). If humans transcend human body, there will be no need for clothing and these requirements would be obsolete. Regulations to social conduct would be affected insofar as sexuality would be obsolete if humans could transfer their mind to non-binary non-sexual avatars; marriage contracts would thus be obsolete, since marriage in traditional Islamic law is closely related to legitimize sexual intercourse and found a family. Looking at premodern literature – most Muslim majority societies that have codified premodern Islamic marriage law into national state law rely on premodern conception without referring to the rationale of the very ruling – marriage law is based on the idea of exchange, where marriage contracts oblige wives with sexual availability and husbands with maintenance obligation (Ali 2020; Katz 2022). Since there will be no sexuality demanded in “avatar relationships”, marriage law in its classical sense would be obsolete. Additionally, the question of a new interpretation of marriage and its relevance, whether related to premodern Islamic law or not, will continue to be addressed in today’s marriage law.

Coming back to social conduct, Krawietz (2012) summarizes the premodern scholars’ wish to regulate social conduct with regard to body and gender as follows: “Islamic legal

discourse is strongly gendered, and Muslim jurists have more to say about the physical aspects of women's bodies than of men's. Most of the female body has to be regarded as private parts (*'awra*) and hence be covered, but even a veiled woman may not function as prayer leader (*imām*), lest she expose her buttocks to male worshippers standing behind her. The demands for pre-emptive averting of the gaze (*ghadd al-baṣar*) and—according to a minority of scholars—the subsuming of the female voice under the category of *'awra* place constraints on the extent to which women can participate in public activities. The two sexes should be separated and contacts between males and females are to be closely monitored, usually by a male member of the woman's immediate family (*maḥram*). Only the regulations concerning the body of the female slave [...] and, to a certain extent, those applicable to elderly women, are more lenient. Two people of the opposite sex must avoid being alone in a room together and must refrain from shaking hands. A woman may not travel on her own for more than a certain distance. Apart from regional and historical differences, the spread of Western education and modern commercial practices have called such restrictions into question." It is not only the modern understanding of the body, gender, and human rights that has helped overcome these traditionalist views of social conduct; discourses of transhumanism can also help free the human body from being associated with sexuality. On the other hand, some scholars see a danger to social life in the general negation of sexuality (Soysal 2023).

The possibility of transcending the human body has implications for further rituals like fasting. Fasting in particular is not possible for AI-controlled robots or human spirits transcending human bodies that does not need food for maintenance and existence. If food and sexual pleasure are erased and humans "transcend" these needs, fasting—defined as the restraint from consuming food and engaging in sexual intercourse from sunrise to sunset (Hallaq 2009, pp. 234–36)—would become obsolete, even though it is one of the pillars of Islam. Consequently, one of the most important acts of worship that fosters closeness (*qurba*) to God would also be rendered obsolete. Going beyond rituals, if we consider the above-mentioned purposes of Islamic law (protection of life, religion, reason, progeny, and property), we can see that some of them are directly related to the body. There are even regulations concerning the dead body and funerals (*janāzāt*); upon death, the body of the believer should be washed for the last time in a ritual purification, enwrapped in shrouds, and treated with reverence "by masking bad odours and prohibiting cremation or disturbing the peace of the deceased" (Krawietz 2012).

Regarding the body, finally, I want to highlight some further restrictions to the transhumanistic notion of enhancement. According to Islamic law, the human body is only an entrusted good (*amāna*) to human beings by God, because everything that God has created belongs to him. The Quran (Q 2:156) states that humans start living with God and with their death they will return to Him. Thus, humans do not have the right to treat their bodies as they wish; the body enjoys a special right, which is conceptualized by the technical term of "the protection of its integrity" (*hurma*) (Krawietz 1991). Thus, every intervention to this integrity, be it usual surgery, must be argued for its validity. Enhancements are therefore restricted by this *hurma*. This goes so far that the dead body of a believer is protected, which has implications e.g. for the validity of autopsy. Mutilation of the corpse (*muthla*) is strongly prohibited and any encroachment on the body-dead or alive must be justified by necessity (*ḍarūra*) or public interest (*maṣlaḥa*) (Krawietz 1991, pp. 125–68). This is also true for instances for blood transfusion, organ transplantation, in vitro fertilization, etc. (Krawietz 1991). This does not mean that the concept of bodily integrity only expresses prohibitions; rather, interventions may be permitted, or even required, to protect life and human existence. There is no single best way to approach this concept, nor is there a single best way to address the cases of transhumanistic interventions in the human body. The issue lies in the fact that the categories of public and individual interest and necessity that justify such interventions could also justify transhumanistic enhancement, as they are vague categories of judgment. Therefore, it is necessary for religious scholars to engage with interdisciplinary research

(such as philosophy, theology, biology, medicine, sociology, etc.) to assess whether there is a societal or individual necessity, or an interest worth protecting.

6. Fictitious Case Studies

So far, we have seen that both the structure and concepts of Islamic law would be affected by transhumanist enhancement of the human body. Related to the theological attitude of the scholars, such enhancements could be treated differently regarding their religious-normative evaluation. I want to discuss briefly three potential cases that could be relevant for religious evaluation: 1) Brain-Computer Interface for enhanced Quran memorization and robot Imams; 2) Virtual reality pilgrimage (VR-Pilgrimage); 3) Artificial wombs (ectogenesis).

6.1 Brain Computer Interface for Quran memorization and Robot Imams

Quran memorization has a long tradition in Islamic cultures. It is highly appreciated among believers to memorize the Quran and recite it by heart. Those who memorize the Quran are called *hāfīz* (protector [of the Quran]). There are several narrations related to the Prophet Muhammad, saying that those who memorize the Quran will be awarded in the Hereafter and highlighting their virtue (Melchert and Afsaruddin 2018). There are also worldwide competitions for reciting the whole Quran by heart. Memorizing the Quran is not only a pious act of particularly religious believers; every Muslim has to memorize at least the first Surah of the Quran and some other passages, like short Surahs e.g. in the last chapter (*juz'*) of the Quran in order to be able to perform the daily five obligatory prayers. For each prostration cycle (*rak'a*), it is required to recite the Quran by heart and in its original language Arabic (Monnot 2012). Especially for believers whose native language is not Arabic, memorizing the Quran can be a challenge. Assuming that there is a brain-computer interface (BCI) for Quran memorization, this interface would ease the non-Arabic speakers to learn the Quran by heart for the performance of their prayers and would also enable them to recite the Quran correctly. How can we deal with this development from an Islamic legal perspective? Is it permissible in Islamic law to use technology to facilitate religious goals, or should memorization of the Quran remain a purely human effort?

Islamic law often encourages the use of permissible means to achieve religious ends. Many scholars discuss whether means that lead to a permissible action should be regarded as permissible in general, and vice versa. The technical term for this is "blocking" (*sadd*) – and "opening" (*fath*) – of "legal means" (*al-dharā'i*) (Kamali 2003, pp. 397–409). Since BCI for Quran memorization would allow to perform the prayer and devote oneself with memorizing the Quran, one could argue that it is permissible to use it. One could go a step further and argue that allowing to use BCI for Quran memorization supports the idea of protection of religion, one of the objectives of Islamic law. Scholars might allow the use of BCI if it does not alter the individual's mental faculties or create a dependency, allowing the user to still engage with the Quranic text sincerely. However, is the question of memorizing the Quran only a technical question? Does using a BCI technology compromise the spiritual significance of memorization, given that the effort and dedication traditionally associated with it are reduced? Scholars often underline that the effort to learn to read and recite the Quran by heart carries inherent spiritual value. This, however, could be diminished by technological aid. Reciting the Quran, either by heart or by reading the Quranic text, is related to after-worldly reward and is associated with the positive influence of the Quran on the human body and psyche (Gilliot 2018); thus, repeated reading of the Quran leads to God's blessing in this world and the hereafter. This repetition and the effort of learning the Quran would be lost if there were no need for repetition so as not to forget what the believer has memorized. One could also argue for a middle-way position: In classical doctrinal texts in Islamic law, scholars discuss

whether it is allowed to recite a translation of the Quran. A minority of scholars allow it; the majority rejects this position because of the miraculous character of the Arabic wording of the Quran. There are some scholars who allow those believers to recite a translation or to pray in their language for the time when they learn to recite the Arabic Quran properly. In cases where believers who are not native speakers of Arabic cannot learn to recite the Quran properly, it would be a legal concession (*rukhsa*), i.e., a well-justified exception to allow using BCI. The only restriction could be that this concession should not lead to laziness in memorizing the Quran.

One could go further and ask whether it is allowed to make use of androids which are capable of leading a congregational prayer. For believers, it is recommended to perform the daily prayers in groups, although they are allowed to perform the prayer individually. Friday prayers, for example, should be prayed in the congregation, lead by an imam. There are different views among scholars about the conditions for the leader (*imām*) of the prayer, how old the prayer leaders should be, how much knowledge they should have about the Quran, how exactly they should recite it, and whether they do match the conditions of the techniques of recitation, whether it is allowed for women to perform the prayer as imams in front of a mixed group of believers or only among women (Ibn Rushd 2000, pp. 159–61). All these questions could become obsolete if a well-programmed, AI-supported robot imam were to lead the prayer with perfect abilities for this ritual, free from gender-related boundaries and errors in recitation or leadership. The unresolved question is whether the required ritual purity, previously addressed and essential for a valid prayer, applies to robots, as well as whether the spiritual dimension of the ritual prayer could be lost by involving non-human agents in its performance. This dimension of spirituality, related to the human soul, plays a crucial role in various rituals, such as the pilgrimage. I want to highlight this as a second example of transhuman enhancement: VR pilgrimage.

6.2 VR-Pilgrimage

Virtual Reality (VR) is already part of recent developments regarding for instance computer games, smartphones, and smart TVs. A VR system could be developed in a way that allows users to experience a fully immersive simulation of e.g. a journey with sensory feedback. Such a technology would allow Muslim believers to pursue their duty to perform the pilgrimage to Mecca (and Medina), which is a once-in-a-lifetime obligation. There are many conditions for the pilgrimage, such as being healthy, having the financial means for the journey, and providing for the livelihood of the family that stays behind (Hallaq 2000, pp. 236–238). Further, many Muslims who fulfill the requirements for a pilgrimage cannot attend the journey because of the limited access to the holy places – Millions of believers want to perform the pilgrimage at the same time since the pilgrimage is only possible once a year. There are also believers who want to perform the pilgrimage but have a physical disability due to age, illness, or financial limitations, so they cannot attend the journey. However, they can delegate it to someone from their family to perform it in their stead if they have the financial means. VR could enable believers around the world to participate in the pilgrimage, and not only once in a lifetime. Allowing VR pilgrimage could thus make the pilgrimage more accessible, but it might also diminish the value and exclusivity of the actual pilgrimage. The question arises whether VR can be considered a valid substitute for physical pilgrimage, given the significance of bodily presence and physical exertion in performing the pilgrimage. One could argue that pilgrimage is a bodily and spiritual experience that cannot be separated from each other. It represents the bodily resurrection in the hereafter and Judgement Day, where, according to the Quran, humans will be alike and equal, which is resembled in the white clothing that pilgrims wear during the pilgrimage. Especially in the literature on the mystical dimension of pilgrimage, Muslim scholars highlight the value of bodily and spiritual experience, like stoning Satan, as resembling stoning one's own ego that tempts

one to act badly (Gramlich 1992). The pilgrimage further requires physical attendance at specific places at specific times, connected with the bodily performance of rituals, like ritual consecration (*ihrām*), wearing specific clothes, and performing circumambulation of the Kaaba, and performing the ritual prayer (*ṣalāh*) at certain places like Mina and Muzdalifa (Hallaq 2000, pp. 236–238). It is thus questionable whether VR can replace bodily attendance in Mecca and the surrounding area. Further, scholars understand pilgrimage as self-cultivation/education since the hardship of the journey can have a direct effect on the attitude toward life. During the pilgrimage, believers also have the opportunity to visit the grave of the Prophet in Medina, which is also seen as part of the experience of the pilgrimage and an important spiritual experience due to the closeness to the grave of the Prophet. However, scholars might permit VR pilgrimage only for those unable to perform the physical pilgrimage due to legitimate cases of hardship again in the sense of a legal concession (*rukḥṣa*).

6.3 Artificial Wombs (Ectogenesis)

Transhumanistic enhancement does not only concern matters of rituals; it has also direct impacts on daily life and societal relationships. One could think of a scenario, where AI-enhanced childbirth such as artificial wombs could be used for procreation. New technologies could allow children to be gestated in artificial wombs (ectogenesis), reducing the risks and challenges associated with childbirth. Couples, including Muslim parents, could consider this method as a way to avoid the physical demands of pregnancy. Using artificial wombs would challenge the idea of parenthood: If the child is born outside the mother's body, how might Islamic law interpret the child's status, especially concerning inheritance and family rights? Further, is it acceptable to avoid traditional childbirth purely for convenience, or should ectogenesis only be used for medical necessity? One can expect that scholars, as they often do in discussions about bio and medical ethics, allow the usage of artificial wombs to prevent serious health risks to the mother or child. They often refer to the above-mentioned general principle that harm should be avoided; we also have premodern cases that serve as a model for contemporary questions where scholars discuss ending a pregnancy if the mother is at risk of death. It is also not farfetched to assume that scholars could refer to the idea that God created the world in a specific divine and natural order; using artificial wombs would transgress these boundaries. We also need to reflect on psychological, societal, and evolutionary aspects, e.g., with regard to the implications of transhumanistic enhancement overcoming sexuality or biological sex using reproductive procreation (Soysal 2023), since these developments could ignore important aspects of femininity in the evolution of humankind and conceptualizes man-centered views on procreation: "The ideal reproductive scenario envisioned by transhumanism involves enhancing male bodies and masculine processes. On the other hand, femininity and motherhood, with their associated costs of bearing and raising children, are considered burdens that must be overcome." (Soysal 2023, p. 12). Similar considerations as mentioned above could be extended to cases of genetic engineering (Ghaly 2019) and the idea of longevity, expanding the life span of people.

7. Conclusions

The present article had the aim to highlight some major challenges that Islamic law faces with regard to transhumanistic ideas of enhancement. As a cross-section of possible discussions, we could see that various basic assumptions of Islamic law play a role in the process of classifying transhumanist ideas under Islamic law. There is not a single argumentation that allows or forbids enhancements from an Islamic legal perspective; one can refer to the universal principles or the modern understanding of the objectives of the Sharia. There is also a need for knowledge from different academic disciplines to evaluate transhumanistic enhancement. It is, therefore, not surprising that scholars deal with these

questions in institutions that allow collective research and legal reasoning (so-called collective *ijtihad*) (Ghaly 2019, chapter 2). Collective *ijtihad* is an approach to which institutions that were established within the 20th century refer to. International academies like the International Islamic Fiqh Academy (IIFA)² or national institutions like Majelis Ulama Indonesia (MUI)³ are institutions that offer legal scholars and experts a platform to reflect collectively on cases that are relevant to Islamic law. They are not uniformly organized according to a specific standard or structure; each academy can have its own characteristics. They do not only bring together legal scholars of different nationalities and legal school affiliations but also experts from various fields such as economics, sociology, biology, and medicine. The academies aim to transcend traditional legal school boundaries and also involve non-Sunni scholars and experts in the process of forming opinions on questions relevant to Islamic law. These issues are determined by a committee in the academies, after which the members conduct their own research on the selected topics. Every year, for instance, the academies organize conferences and meetings at which scholars present the results of the studies of the selected subjects. After the presentation of the results, the members weigh them up and make a decision collectively: Either they agree on a solution based on the research results presented, or they develop a new solution together. Once the members have agreed on a solution, they announce the results in the form of resolutions (*qarārāt*) and sometimes as legal opinions (*fatāwā*). Resolutions can be published in the academies' journals, are often available online (including in translation), and are also printed in book form (Gad Makhoulf 2020).

Islamic law is dependent on philosophical, theological, ethical, sociological, medical, and biological reflections on transhumanistic concepts, ideas, and developments. It can only react to these developments; however, it has a basic structure that allows for flexible and dynamic solutions, which do not inevitably lead to a positive or negative evaluation of transhumanist ideas on enhancement. On the other hand, the bodily experience of humanity is one of the key aspects of the function and system of Islamic law, whether in its premodern or modern interpretation. The human body is granted special protection. Nevertheless, if people act responsibly for the sake of human existence, and if the core assumptions of Islamic law are respected and not ignored, the Islamic legal tradition has the potential to adapt to the newest developments by reflecting on them theologically, legally, and ethically. This would allow it to serve as a powerful and useful tool for reflecting on recent technological developments and their impact on human life and action. However, this requires a highly sophisticated new approach to legal discussions in an interdisciplinary manner. So far, neither premodern nor contemporary scholarship offers a field that enables the exploration of new approaches to legal philosophical questions in an interdisciplinary way. In light of this, there is a need for a new field that enables Islamic theology to engage with these questions, particularly in relation to the daily and religious conduct of Muslim believers, in an interdisciplinary fashion. The Islamic legal tradition can (and even should) develop an Islamic philosophy of law as a response to this need. One of the major questions that could be dealt with in Islamic Philosophy of law is the question of personhood, how to define it, how it relates to the existence of body and soul, and how legal responsibility will be affected by the concept of personhood. This question, as we seen above, seems to be a fruitful starting point for an interdisciplinary study that engages with philosophy, law, and theology.

Regardless of the different methods and processes used to find solutions for cases relevant to religious evaluation within Islamic law, our understanding of the universal principles of Islamic law, our knowledge, and attitude toward transhumanist enhancement, and our ideas about theological dogmas and philosophical concepts related to human existence are decisive in determining the potential rulings that can be derived

² <https://iifa-aifi.org/en>

³ <https://mui.or.id/>

within Islamic law. Thus, a plurality of Islamic legal views is inevitable. Put positively, Islamic law will be highly pluralistic in addressing transhumanist challenges and opportunities.

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