CREATORS AND CREATURES: THE CREATION ACCOUNT IN GENESIS AND THE IDEA OF THE ARTIFICIAL HUMANOID

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Abstract.   Science fiction, this article argues, provides an imaginative domain which can offer a unique understanding of the interaction between science and religion. Such an interaction is particularly present in the idea of the artificial humanoid as brought to life in Mary Shelley's *Frankenstein* and the recent television series *Westworld*. Both revolve around the theme of a moral relation between scientist creator and humanoid creature in accord with a norm that first took shape in the biblical account of God's creation of the first human beings. At the same time, these works of fiction cast light on the contrast between the biblical account and the Mesopotamian myths of creation. In the manner of *Frankenstein* and *Westworld*, science fiction can integrate the perspective of science with that of the biblical tradition.

Keywords: artificial humanoid; Book of Genesis; *Frankenstein*; responsibility; robot; science fiction; *Westworld*

In exploring the place of religion or theology in a world permeated by techno-scientific projects, one can hardly ignore the field of inquiry offered by fiction, either literary or cinematic. Fiction, at its best, is more than a wandering of the human imagination; it is not just an ambivalent rendition of what could otherwise plainly be said by way of nonfiction. Indeed, genres of nonfiction like the essay, the report, or the documentary film are barely capable of *presenting* the truth with such depth and richness as a novel, a play, or a television drama *suggest* it—a contrast which proves to be particularly stark when it comes to science and technology. For, one might ask, what would more directly correspond to scientific truth than the clear-cut fashion in which an academic article or a science documentary presents it? Is it not the case that fiction belongs to a realm of reality that is incommensurable with the one in which science and technology move? It

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is clear, however, that what a work of fiction can suggest is not a scientific or technological truth, but the truth about a scientific or technological idea. And, this deeper truth shown by means of fiction seldom fails to open up religious or theological vistas.

Before bringing my argument into sharper focus, a useful distinction is in order. What I mean by "fiction" overlaps to some extent with the term "narrative," yet it is not my concern to join the postmodernist debate on what kinds of societal narratives legitimize science, or whether science needs such legitimization at all (Carroll 1997, 93–95). Making use of the concepts of "fiction" and "narrative," I am concerned with the "understanding of science" rather than the "legitimization of science," and my position is somewhat closer to that of the Israeli historian and futurologist Yuval Noah Harari. Harari not only claims that no society can dispense with a comprehensive fiction (which is, in his approach, more or less coextensive with religion); he also contends that the accelerating march of modern science and technology will, instead of replacing fiction with "facts," usher in an era of even more powerful "religious" fiction (2017, 176–77; 207–10.) Nevertheless, while Harari predicts the imminent triumph of a secular techno-religion, I will in what follows argue in favor of the continued relevance of the biblical faith and the Judeo-Christian tradition.

One does not have to embrace the grand scale of Harari's use of the term "fiction" to recognize the inadequacy of a specific genre like science fiction to bear the truth about techno-scientific ideas or their hold on the human condition. Indeed, there is a broad range of fictional genres capable of suggesting such truths. Still, as specific and particular as it is, science fiction can thoughtfully evoke religion and theology in opening a window on our techno-scientific age. Undeniably, it has a unique character among all the genres. In exhibiting various "ways in which science penetrates, alters, and transforms the themes, forms, and worldview of fiction," science fiction is a kind of "unstable compound" of "the humanistic and the scientific" (Slusser 2005, 28). Or, to use another metaphor, which tries to capture more or less the same idea, science fiction is a "bridge between the two cultures of science and the humanities" (Schwartz 1971, 1044).

What I will discuss in the following sections is the story of the creation of human beings in the Bible and that of artificial humanoids in science fiction. I intend to point out thereby more than the basic insight that the biblical story of creation influences the idea of the artificial humanoid in science fiction. I will enquire into what kind of influence there is, and it will be precisely the answer to this question that will uncover what can be called a "reversal of influence." While the beginning or the early period of a tradition can influence what comes later, it is also true that the latter can make visible in the former what had been invisible before; a tradition's present can also "influence" its beginning in the sense that we approach the beginning through the present and can thereby see something which has

hitherto not captured our attention. Accordingly, I aim to show that the Bible can influence science fiction in a manner whereby the latter brings to the fore in the Bible what has always been there yet hidden. I will proceed in the following way. First, I will put the biblical story of the creation of human beings into the context of related creation stories from ancient Mesopotamia and, as a result, the uniqueness and novelty of the Bible will emerge. Then, I will delve into one of the ancestors of science fiction, Mary Shelley's *Frankenstein*, and explain in what sense it is a "moral tale" and why it is a "biblical story" for the same reason. Furthermore, I shall discuss the HBO sci-fi series *Westworld* and explore it from the same perspective as the one from which I interpreted *Frankenstein*. Finally, I will conclude my argument by presenting the triad of biblical tradition, science fiction, and science with reference to the idea of artificial intelligence.

CREATION, PARTNERSHIP, RESPONSIBILITY

It is a significant development in cultural history that Western science fiction has envisioned the creation of artificial humanoids, and also that it has done so partly within the biblical tradition of the creation of human beings. As a matter of fact, deep interest in the origin of humankind is not exclusively Western or biblical. There has hardly ever been any culture over the face of the Earth that did not have this interest and raise this question. Numerous are the related myths that have been bequeathed by numerous peoples, from the various tribes of North America to the high civilizations of the Far East. All these myths were presented in *Folklore in the Old Testament*, a comparative study by James George Frazer, in which he grouped the various correlated themes of the world's myths on the basis of the thematic units of the Old Testament to produce an analytical comparison between the Old Testament and the myths (Frazer 1919). As for the creation of humankind, Frazer compared the Old Testament and the myths of the world solely with respect to the motif they share (the creation of man out of clay or dust), without pointing out what makes the Old Testament exceptional among them. Obviously, such a task is beyond the scope of this article. However, as regards the creation of human beings, this article can provide a contrast between the Old Testament and what is considered its closest counterpart: ancient Mesopotamian myth. And, it is exactly Mesopotamian (Sumerian-Akkadian) myth that will put the Old Testament's influence on Western science fiction's idea of the artificial humanoid into perspective.

The difference between the Old Testament and Mesopotamian myth in terms of anthropology has been concisely formulated by one of the leading experts of the field: "The task of ruling over the earth that the Book of Genesis (1:28–30) assigns to human beings is not in accordance with the general Sumerian-Akkadian view, according to which human beings were

created to serve the gods by providing them with food and drink so that they do not need to work" (Lambert 1993, 72). This juxtaposition of the two respective motives from the two traditions is by no means biased; it gives a truthful glimpse into what is at stake in the divergence between the two. Even when the Old Testament's narrative of the prelapsarian state comes closest to the primordial imposition of work on human beings in Mesopotamian myth, Adam is put "in the garden of Eden to tend and keep it" (Genesis 2:15[1]) for his own good and to fulfil his own needs, and not because God is in need of his work. Thus, the two different kinds of anthropology imply two different sorts of theology and, as a consequence, disparate human–divine relationships.

What makes human–divine relations in Mesopotamian myth so different from those in the Old Testament is an apparent paradox, as the divine subjugation of human beings in the former appears to be in flat contradiction with the simultaneous concept of divine–human kinship. As various passages bear testimony to this most characteristic Mesopotamian notion of human origin, the first human being or beings were created from the blood of a slain god or gods, for the sole purpose of serving the gods by relieving them of their work. In the great Babylonian epic *Enuma Elish*, it is the god Ea who, after the supreme god Marduk forms the idea of creating man for the provisioning of the shrines of the gods (temporarily performed by a group of defeated gods), advises Marduk to put his idea into effect by killing the main intriguer among his adversaries—who turns out to be the god Qingu (cf. Heidel [1942] 1951, 9, and Lambert 2013, 110–13, 455–56). A tablet excavated among the ruins of Ashur (dating from approximately 800 BC) recounts that, after the creation of a well-ordered cosmos, all the great gods ask themselves what else should be done, and decide to slay "two Lamga gods" (who are "craftsmen gods") in order to create the first two human beings, so that "the service of the gods be their portion ... to maintain the boundary ditch ... to raise plants in abundance" (Heidel [1942] 1951, 68–71). Particularly significant is the *Atra-Hasis* epic which begins with the sweat and toil of a group of gods, the Igigi, who revolt on account of their hardships, thereby prompting the assembly of gods to entrust the birth-goddess Mami with the creation of man and to slaughter the god We-ila to assist her—another example of a sacrifice of a god, whereby "god and man" become "thoroughly mixed" to "let man bear the toil of the gods" (Lambert and Millard 1969, 42–65, 56–59). The theme that left traces in *Enuma Elish* also emerges strongly in *Atra-Hasis*: human beings are close to the world of the gods not only by having kinship with them, but also by being instrumental in solving their conflicts (cf. Müller 1991, 112, 115). After due consideration, it is clear that, on the one hand, this kinship and contribution and, on the other, the divine subjugation of humans, do not contradict, but confirm each other.

Another fragmentary story, attested by a few Old Babylonian and Neo-Assyrian tablets, clearly shows that the gods' subjugation of humankind does not only imply the latter's "functionality" or "economic value" for the former. The god Enki (Ea) and the birth goddess Ninmah, after their cooperation in creating humanity, with Enki being the mastermind and Ninmah one of those who execute his plan, enter into a competition at the celebratory banquet (a veritable drinking party) to decide who is able to form a more dysfunctional human being. Ninmah challenges Enki as follows: "It is for me to decide whether a human body should be good or bad. / In accordance with my decision will I make a destiny good or bad." And Enki replies: "I shall assess the destiny you decide upon, whether it is good or bad" (Lambert 2013, 339). In like manner, Ninmah creates, one by one, seven human beings with various disabilities, and Enki accepts and beats off her challenge by finding employment for each and every one. Then comes Enki's turn, and he fashions a single human being who is so utterly disabled that Ninmah is helpless in the face of him. What is manifest in Enki and Ninmah's story is the truth about Mesopotamian myth that, while the gods badly need humankind, it is a plaything in their hands.

Curiously, the episode in which Mesopotamian myth most markedly diverges from the Old Testament narrative is perhaps not the creation, but the very destruction of humankind. The onslaught of the great flood and one individual's being rescued from it come to pass in Genesis and in the Atra-hasis epic for radically different reasons. Whereas the God of the Old Testament saw "that the wickedness of man was great in the earth, and that every intent of the thoughts of his heart was only evil continually" (Genesis 6:5; cf. 6:11-12), the god Enlil, the main instigator of the flood in the Babylonian epic, is angered and complains that "the noise of mankind has become too intense for me, / With their commotion[2] I am deprived of sleep" (Lambert-Millard 1969, 66–67; cf. 72–73). While the biblical God makes the decision to wipe out humankind for moral reasons, Enlil does the same out of concern for his rest. Although it has been suggested that the noise of humankind is a rebellious uproar against their harsh labor in the Babylonian epic, it is now clear that the commotion disturbing Enlil arises from the mere existence of burgeoning humankind (Albertz 1999, 5–8, 12–15). Moreover, when it comes to the divine favor the flood survivor Noah finds it on moral grounds as a "just man" who "walked with God" (Genesis 6:9), while his Babylonian counterpart, king Atra-hasis, just happens to be the protégé of Enki who is one of the most powerful gods.

Where there is a virtual paradox between subjugation and kinship in the Mesopotamian account of gods and people, we encounter a real one in the Book of Genesis that involves, on the one hand, an absolute divine sovereignty over creation and humankind and, on the other hand, a unique

relationship which can justifiably be called a partnership. No doubt, God acts with supreme power and in full majesty when calling the whole creation into existence by a sequence of "let there be," but at the same time the created world and humankind are a great deal more than passive objects or products of God's creative power. Indeed, the metaphysical doctrine of creation in terms of "causation" or "production" by God needs to be supplemented and also revised in the light of the actual text of Genesis 1 and 2 (this is the main argument in Welker 1991). What we have here is also a process of a dialogical character. First, God does not only "act," but also "reacts" to what God has already created. God perceives and evaluates (1:4a, 10b, 12b, 18b, 21b, 25b, 31a); God names (1:5a, 8a, 10a); God separates (1:4b, 7b). Second, and perhaps even more importantly, creation is given a degree of autonomy with its own activity and creative power. The earth becomes capable of "bringing forth" vegetation (1:11–12) and animal life (1:24). The "lights in the firmament of the heavens" are "for signs and seasons, and for days and years" (1:14), and they are able "to give light on the earth, and to rule over the day and over the night" (1:17–18). As a matter of fact, such autonomous activity and power on the part of creation particularly comes into its own through the first human being(s). God shares with them God's dominion over creation (1:28); a cooperation is envisioned between God's rain and human labor before the dawn of agriculture (2:5); Adam is endowed with the ability and right to name "every beast of the field and every bird of the air" (2:19–20a). This grandiose partnership between God and humankind, unheard-of in Mesopotamian myth, becomes all the more significant with respect to the similarly unparalleled gulf between the two.

Clearly, no partnership is possible without freedom on both sides. Humankind's freedom in God's garden may be called "playful" and a "serene freedom to be" (Müller 1972, 275), and undeniably implies much more than the liberty to break the prohibition on the tree of the knowledge of good and evil (2:17). "In the very act of creating, God gives to others a certain independence and freedom . . . . Creation involves . . . a degree of openness and unpredictability wherein God leaves room for genuine decisions on the part of human beings as they exercise their God-given power" (Fretheim 1994, 355–56). In biblical perspective, the freedom of the first human beings consists primarily in their work for themselves and for the whole of creation (and not for God) by "having dominion" (1:28) and "tending and keeping" the garden (2:15).

The great biblical leitmotifs of divine–human partnership and shared freedom in God's creation are closely associated with the great moral theme of shared responsibility for the same creation. It is this moral theme that emerges in the celebrated locus about God creating male and female in God's image and according to God's likeness (1:26–27), for the adjacent clarification in verses 26 and 28 (with God's wish and command

that they have dominion over all the creatures and "subdue" the earth) means cultivation and care-giving rather than any violence or exploitation (Fretheim 1994, 345–46). However, no sooner does the theme of the shared responsibility of God and the first human couple toward creation appear than God gives expression, by declaring God's act of nurturing them (1:29) and all animal life (1:30), to God's own responsibility for all creatures with special regard to humankind. Within all creation, God has a distinct relationship of love and care with God's image and likeness. This distinction and special responsibility come particularly to the fore in the second creation story when God perceives Adam's solitude and takes care of him by first fashioning all species of animal life and bringing them to him (2:18-19a), and then forming another human being out of his flesh who becomes his wife (2:21–24). Such episodes in the biblical creation narrative clearly show that the responsibility that comes to be shared by a creator and a creature (for someone or something else) coincides with a growing responsibility of the former for the latter.

As a matter of fact, the difference between the anthropology of the Hebrew Scriptures and that of the other religions of the Ancient Near East is not an absolute one. Novel and unusual as the Genesis account of creation is, biblical theology inherited from the religious traditions of Israel's cultural environment the notion that human beings are servants or slaves of the divine. Key figures of the narrative like Abraham and Moses are designated "servants of God" not only by the narrator in third person, but also by themselves (see Genesis 18:3 and Exodus 4:10). Their peer in servitude, Job (see Job 1:8 and 2:3), can even be seen as a plaything in a dispute between God and Satan in a way that is reminiscent of the story of Enki, Ninmah, and their disabled creatures. Nevertheless, Job's plight is an extraordinary episode of temptation, which starts and ends with the grace of God who is in no need of Job's service and worship in the manner of the Mesopotamian gods' dependence on their human servants. "Servitude" in the Hebrew Scriptures means human beings acknowledging their need of the goodness of God (see Neumann 2003, 748) who always listens to those who make an appeal for it. On the other hand, those enjoying an intimate relationship with God, like Abraham and Moses, are called "friends of God" (Isaiah 41:8; Exodus 33: 11—cf. Kegler 2003, 378). What is more, any person who is righteous before God can cultivate such a friendship (Psalms 25:14). Obviously, this feature of biblical thinking is consistent with the aforementioned moral terms of the creation account and leads us away from the Mesopotamian understanding of the human and the divine.

FRANKENSTEIN: A MORAL TALE

To speak or write about morality is extremely challenging and fraught with the ever-lurking danger of falling into moralizing and didacticism. There is

no doubt that the labels "didactic" and "moralizing" may equally be applied to works in a wide variety of genres: in fiction and nonfiction writing, cinema, sermons, and political speeches as well as everyday conversation. Still, fiction writing will suffer the most of all these genres should it abandon the free, autonomous movement of the imagination in order to take on the encumbrance of a weighty moral.

Such an alternative has long haunted the critical reception of Mary Shelley's Romantic novel *Frankenstein*. Not that the slightest accusation of a "failure of imagination" could reasonably be leveled against the novel as a whole. Yet, it is true that the long tale told by Frankenstein's monster in the middle of the novel, an elaborate account of the innocence and miseries of a "noble savage," barely stops short of a homily to his creator. Nevertheless, a deep moral meaning is so carefully interwoven with the imaginative fabric, nay the main strand of the text, that its aesthetic grandeur remains unshakeable. In a quest for his own glory, a scientist bestows life on an artificial humanoid creature who becomes an autonomous and uncontrollable force, and ends up devastating his maker by taking the lives of those he loves. It would be difficult to contrive another basic plot as amenable to insight into both human creativity and its moral implications as this one.

All the major details of the story serve this basic plot, although they emerge within a complex narrative structure. Frankenstein's narrative, which encapsulates the monster's account of his own story, is in turn narrated by an explorer, Captain Walton, in a sequence of letters from an expedition to the North Pole. It is on this journey that Walton encounters Frankenstein, who has by now reached the final stage of his life, on a quest to kill the monster he created. He tells Walton of his origin, his childhood and the way nature aroused his passionate interest in her secrets, which finally prompted him to start studying science at the University of Ingolstadt. In his consuming thirst for knowledge, he made rapid progress to the point of discovering the secret of life and learning how to suffuse inanimate matter with it. So it was that, from parts of mutilated corpses, he fashioned and brought to life an eight-foot tall humanoid creature which Frankenstein, shocked by his extreme ugliness, instantly abandoned. From that day onwards, from his very birth, the monster lived a solitary life of his own, and it was not until Frankenstein's return to his native city, Geneva, and his brother's falling victim to the monster that, in the majestic setting of the Swiss Alps, creator and creature met again. In turning his utter revulsion into a wary interest, the latter shared with the former the story of his mental, intellectual, and moral development plagued by the tragedy of relentless solitude and rejection by human society. Then, reminding Frankenstein of his duty as a creator, the creature made an impassioned plea for a female companion—to be formed and animated by Frankenstein in the same way as he was created. Although Frankenstein first complied with the monster's request and, albeit after a long interval, set about work

on the female creature, he changed his mind just before completing her and destroyed the unfinished body. Upon learning what his maker did, the monster continued his course of vengeance on him by murdering first his best friend and then his bride. Then, in a deadly spiral of retaliation, Frankenstein set out on a long journey in pursuit of his creature, until they reached the Arctic region—and so Frankenstein's narrative comes to the point of his encounter with Captain Walton. The narrative gives way to the conclusions voiced by Frankenstein about his life. In the meantime, in spite of the dying Frankenstein's charismatic support, Walton cannot prevent his crew from turning his ship back to England. The last scene of the novel, narrated by Walton, follows from Frankenstein's death when the monster comes aboard, and the way he mourns his creator's tragic end and expresses remorse over it makes clear what a profound and fatal community they have been trapped in. Finally, the monster disappears into the Arctic mist to put an end to his own life.

At first glance, the turning point in Frankenstein's story and the very rationale of the subsequent tragedy are that the nascent creature proves to be hideously ugly and his creator cannot overcome his disgust with him. However, there is a moral logic with deep coherence at work in the novel, which contradicts any interpretation of the plot as hinging on a contingent and external fact like the creature's appearance. The inadequacy of a literal understanding here has long been noted by scholars. "It is not so surprising," as one of them puts it, "that he [Frankenstein] made a hideous creature he could not control," and there is a possibility that "Victor turned away from his creation because he was stunned by the enormity of his transgression" (Reichardt 1994, 137). Another scholar raises the point the following way: "It is clear . . . that the monstrosity of his creation is in the first instance less a matter of its physical appearance than of Frankenstein's terror at his own success" (Winner 1977, 309). A distinguished literary critic gives further nuances to the issue by claiming that "Frankenstein's tragedy stems not from his Promethean excess but from his own moral error, his failure to love," and adding that "he *abhorred his creature*, became terrified, and fled his responsibilities" (Harold Bloom 2007, 6). Obviously, the point is not that Frankenstein *first* "abhorred his creature" and "became terrified," and *then*, as a *consequence*, "fled his responsibilities"; rather, his abhorrence and terror are of a moral nature at their very core. It is true that his tragedy does not stem from his "Promethean excess" inasmuch as the excess is purely a techno-scientific one; at the same time, his fall and demise do very much stem from an excess as "the enormity of his transgression" in the fullest moral sense. In fact, the creature's "monstrosity" and "Frankenstein's terror at his own success" organically follow from the spirit in which the young scientist conceived and fashioned his creature.

Why indeed is it "not so surprising" that "he [Frankenstein] made a hideous creature he could not control"? I venture to say that the creature's hideousness and uncontrollable nature accord with Frankenstein's fanaticism and self-centered urge, which drove him toward his act of creating life. In his "pursuing nature," he goes beyond the boundaries of humankind and the human community both physically and spiritually. In his narration to Walton, Frankenstein allows him a glimpse into his mind and condition at the time just before completing his enterprise.

> Life and death appeared to me ideal bounds, which I should first break through, and pour a torrent of light into our dark world. A new species would bless me as its creator and source; many happy and excellent natures would owe their being to me. No father could claim the gratitude of his child so completely as I should deserve theirs . . . . These thoughts supported my spirits, while I pursued my undertaking with unremitting ardour. My cheek had grown pale with study, and my person had become emaciated with confinement . . . . One secret which I alone possessed was the hope to which I had dedicated myself; and the moon gazed on my midnight labours, while, with unrelaxed and breathless eagerness, I pursued nature to her hiding-places. Who shall conceive the horrors of my secret toil as I dabbled among the unhallowed damps of the grave or tortured the living animal to animate the lifeless clay? My limbs now tremble, and my eyes swim with the remembrance; but then a resistless, and almost frantic impulse, urged me forward; I seemed to have lost all soul or sensation but for this one pursuit. (Shelley [1818] 2003, 55)

What this quote implies is that Frankenstein shuns all human society, companionship and affection in his single-minded and maniacal pursuit of a scientific project. That he appears to enter an illicit and forbidden realm as a scientist and he does so in the haughty and total seclusion of his laboratory—these are two sides of the same coin, and it is possible that less seclusion would render his enterprise less illicit. But Frankenstein's moral failure is more complex than that. On the one hand, there is no question that the way he carries out his project violates the "social law" in terms of love, community, or sympathy (this is the central point in Goldberg 1959). On the other hand, this violation takes place at the deeper level of Frankenstein's blind ambition without any consideration of his work's consequences whatsoever—indeed, if there is any anticipation in Frankenstein, it is that of his personal glory. First he fails to take responsibility *to* his creature and responsibility *for* how his creature may act so that, as a consequence, he *experiences* responsibility in the form of an all-consuming remorse (cf. Johnston 2017). In fact, Frankenstein proceeds from the misery of ambition before the deed (ignoring responsibility) to the misery of guilt after it (admitting rather than assuming responsibility).

The great dialectic of morality in Mary Shelley's novel is that the more obliviously Frankenstein leaves morality behind, the more tragically he becomes entangled in it. The role and imagery of nature in the novel are

particularly telling in this regard, as the idea of the protagonist "transgressing" nature and nature "punishing" him (Mellor 2017, 244) seems to me a partial truth. "Transgression" and "punishment" are moral notions, and the crux of the matter does not appear to be nature herself. It is more plausible to think that what the novel's depictions of the grand and sublime scenery of the Arctic and the Alps make visible is an entire moral world in the same way as the image of the storm's rage does in *King Lear* (Palmer and Dowse 1962, 284). Quite significantly, such sublime scenery predominates in key sections of the novel: the encounter and conversation between Frankenstein and the monster on the mountain above Chamonix, surrounded by the blinding splendor of the Swiss Alps, is at its very center; the beginning and the end—the very framework—of it is Captain Walton's account as set in the inhuman beauty of the Arctic North, and this is the place where the story of creator and creature is heading. The far North is the scenery that suggests in what sense Walton and Frankenstein mirror each other; it is the far North that epitomizes the terrible and devastating beauty of the way in which explorer and scientist, each other's counterpart in blind ambition, leave behind the moral world and are, at the same time, claimed by it. Their flight from it drives them deeper into it.

It is not without a trace in the text that the novel's plot of a scientist creating an artificial humanoid was conceived within a culture shaped by the biblical account of creation rather than Mesopotamian myth. Given the general tenor of the novel, it should come as no surprise that a textual reference to Genesis does not emerge through Frankenstein's moral insight but the monster's desperate admonition. The figures of Adam and his Creator enter the monster's discourse through the narrative device of the latter coming across a leather portmanteau which has, among other books, a copy of Milton's *Paradise Lost* within. Milton's epic stirs intense emotions in the monster.

> I read it ... as a true story .... I often referred the several situations, as their similarity struck me, to my own. Like Adam, I was apparently united by no link to any other being in existence; but his state was far different from mine in every other respect. He had come forth from the hands of God a perfect creature, happy and prosperous, guarded by the special care of his Creator; he was allowed to converse with and acquire knowledge from beings of a superior nature: but I was wretched, helpless and alone .... "Hateful day when I received life!" I exclaimed in agony. "Accursed creator! Why did you form a monster so hideous that even *you* turned from me in disgust? God, in pity, made man beautiful and alluring, after his own image; but my form is a filthy type of yours, more horrid even from the very resemblance." (Shelley [1818] 2003, 132–33)

Being the principal account of the creation of human beings in Western culture, the Book of Genesis was bound to draw a horizon on which to set a fable of the scientific creation of a humanoid—a horizon with profound

moral implications. The underlying presence of Milton and the Bible in the text is obvious and penetrating, and their influence in moral terms greatly counterpoints that of the Prometheus myth (the latter providing the subtitle, while Milton's Adam the motto for the novel; Robinson 2017, xxviii). Neither to his potentially autonomous creature nor for the creature's potentially autonomous deeds did the Promethean scientist anticipate and take the responsibility that the biblical God did anticipate and take. This moral failure renders Mary Shelley's narrative one of the most powerful dramas in modernity.

The Humanity of Robots

"Sympathy" is a curious word. It certainly denotes a kind of attraction, but the meaning it conveys is richer than that. Besides, "attraction" is usually meant in a sexual or aesthetic sense. When someone is sympathetic toward someone else, there arises a liking with a strong moral connotation. But there is more. For sympathy is suffused with a moral sentiment, which is often evoked by difficulties, suffering, and even misery on the part of the other person. However, things that evoke such moral sentiment do not necessarily imply any high moral stature. People with disabilities provide a good example. We have a habitual, almost automatic sympathy for them, often coupled with the attribution of something like a moral depth; a little consideration, however, makes it clear that, if there is a kind of depth to be presumed in these people, it is not necessarily a moral one—why indeed could a person with disabilities claim, on the sole basis of her condition, moral superiority to anybody else without disabilities? Another fascinating example, and rather extreme and illustrative at that, taken from the world of fiction, will show the point of the matter. There is a scene in Shakespeare's Scottish Play that owes its fame in no small part to Thomas de Quincey's critical essay "On the Knocking at the Gate in Macbeth" (1823). In Act Two, immediately after the murder of King Duncan, a repeated knocking at the gate of the castle (as it turns out later, by Lord Macduff and Lord Lennox) creates an atmosphere of terror and destiny which starts weighing upon the murderers, Macbeth and his wife, Lady Macbeth. De Quincey's essay magisterially analyzes the subtle psychology of the scene, pointing out that at this moment the viewer's sympathy shifts to the murderers. Clearly, the psychological depth that we experience in this scene follows from the exact opposite of any moral greatness: it is from an act of depravity the Macbeths performed out of hunger for power. Still, by virtue of something very deep and human, the air of a profound tragedy and especially Macbeth's growing and all-consuming sense of guilt, our sympathy lies with the murderers. Moreover, to bring up an example we are already familiar with, the case of Frankenstein's monster is not very different from Macbeth's—at least from the perspective of the reader's

sympathy. Even if he started his life with the attitude of a "noble savage," the monster turns out, after all, a serial killer; nevertheless, his account of his life's tragedy exhibits a human depth and greatness which invites a comparison with his creator ultimately unfavorable to the latter (Harold Bloom 2007, 4).

However thought-provoking these examples are, the moral of the HBO series *Westworld* with its extremely lifelike humanoid robots is even more momentous. As a critic in the *New Yorker* magazine aptly noted, the authors of the screenplay "have shifted the story's sympathies" from the human characters to the robots, as compared with the original story of the series' source, Michael Crichton's 1973 motion picture of the same title (Nussbaum 2016). If Westworld's story has sympathies, its viewers are supposed to share them by siding with the robots. What is, however, truly amazing and even shocking in these robots is not merely their moral superiority, which surpasses that of the human hero Macbeth by far, and roughly equals that of the "organic robot," Frankenstein's monster. No, the logic of our sympathy with them is quite similar to the one at work, beyond their morality, with Macbeth and the monster: the robots' rich emotional life, their passion and charismatic depth, their very humanity exceed those of the human characters of the series. "The biggest reveal of the finale [of *Westworld*'s Season Two – G.A.]," as another critic puts it, "is that, up until now, we had been identifying with the wrong race, hoping for evolution or enlightenment from the human characters, when it was their stories that were really trapped in loops of fate" (Crouch 2018). When human beings in the series come to be transferred to volumes of source code, the code of the robots proves "more complicated and elegant."

The title of the series, *Westworld*, comes from its vast setting, with the typical landscape, props, figures, and costumes of Western movies—a huge historical theme park of the same name. The park is populated by robots called "hosts" who receive and entertain human visitors from the outside world who pay a fortune for the privilege. *Westworld*'s major point of fascination is that the hosts' bodies and behavior are so similar to those of human beings that the guests cannot tell the difference between the two species. The great allure of the park is particularly increased by the human guests' liberty to treat the hosts as they please: they can play out their wildest fantasies by engaging in torture, rape, or murder, while themselves being protected from any harm. Although the essential storyline of the plot in Season One is that the hosts experience a process of awakening, they are not supposed to know that they are robots under the total surveillance of an operation center which exercises control over each and every detail of *Westworld*. Indeed, at the outset, the robotic hosts live in a world of perfect illusion, with their bodies undergoing maintenance or reanimation, and their memories being blotted out on a regular basis in Westworld's laboratories. Indeed, they live their lives in a staccato fashion over isolated

periods of time with the intervals of full reboots in sleep mode. A far-reaching change begins with two female robots, Dolores and Maeve, before spreading to all the other hosts: they wake up when they are supposed to sleep, and they experience memories flooding back when they are not supposed to remember anything. The change has an air of mystery around it; it is nevertheless not left unexplained, as the narrative includes hints about alterations and inconsistencies in the code of the hosts, which are in turn the result of conflicts among human characters and agencies. One of the conflicts arose in the distant past between Arnold Weber and Robert Ford, two scientists who were the co-founders of Westworld, and even if Arnold died long before the main strand of the narrative in the present, his alternative vision for the hosts and related coding of them continue to influence their behavior. The other conflict occurs between Robert Ford and Delos, the company running the whole Westworld complex; Delos becomes dissatisfied with Ford's management and forces him to resign at the end of Season One, which culminates according to his plans all the same: he carefully stages his own execution and the hosts' takeover.

With respect to their treatment of the hosts, the fascinating figures of Arnold and Robert stand out among all the other human characters. No doubt, it is the cruelty of the average human visitor and company executive that proves the main driving force in the story of Westworld; it is their large-scale violence against the hosts that triggers the inexorable process from mastery to revolt, from cruelty to backlash, as the masters' general attitude rebounds upon them (cf. Paul Bloom and Harris 2018). While differing in opinion for a long time, both Arnold and Robert treat the hosts with a creator's appreciation of his creatures, and with a partner's sympathy for his peers' humanity. Although in the past Robert disagreed with Arnold, who wanted to prevent the opening of the park after recognizing the hosts' capacity to be conscious and suffer greatly under the brutal conditions of Westworld, he finally hands the park over to the hosts as the superior race of the future that surpasses the human race by being more human. What makes Arnold's and Robert's attitude as creators so special and so different from Frankenstein's is the dialogical nature of the way in which they relate to the hosts, in curious agreement with the biblical God's creation of and partnership with human beings. By contrast, most of the other human characters behave like Mesopotamian gods who fully exploit the hosts as their slaves.

Reference to the image of the biblical God's creation is not gratuitous or out of place in connection to Arnold and Robert. In the final episode of Season One, in a highly philosophical and emotional scene in which conclusions and revelations about the essence of the Westworld project are forthcoming, Robert turns Dolores's attention to a reproduction on the wall of his office of Michelangelo's fresco of the creation of Adam. Unsurprisingly, his enthusiasm for the fresco, as he explains, was shared by

his dead partner; it was Arnold's favorite painting. What is at stake with Robert's interpretation of the fresco is his and Dolores's understanding of their relationship as a creator and a creature, and also of Dolores's relationship with Arnold, her factual maker. In Robert's view, Michelangelo's image carries a "metaphor" with a hidden and true meaning which is premised upon the shape of the drapery around the Creator: it is the shape of the human brain. In Robert's words, "the divine gift does not come from a higher power, but from our own minds" which, let it be added, are able to create intelligent life in the form of perfect humanoid robots. But the direction of what Robert calls here a "metaphor" can be reversed. What comes "from our own minds" is still a "divine gift." Robert's and Arnold's creation of robots like Dolores and all the other hosts may assume its true meaning through the biblical image of God creating human beings.

The episodes of the series offer various lyrical glimpses into the beginnings of Dolores's existence surrounded by the signs of Arnold's love, care, and profound sense of responsibility for her. As an overture to the hosts' seizure of power under the leadership of Dolores, Episode 10 in Season One shows a flashback to the moment when Dolores first "came online" and gained consciousness. In response to Arnold's call, she opens her eyes and sits up with her metal framework still largely uncovered by skin. After they greet each other, Arnold takes her hands with a smile in a warm gesture of welcome: "welcome to the world." In delving further into the dawn of Dolores's consciousness, Episode 2 in Season Two recalls another moment of wonder for Dolores in the caring company of Arnold—the wonder of a newborn child at the lights of an unidentified metropolis where he has taken her for a fundraising event on behalf of Westworld Park. They are just about to leave, yet Arnold hesitates and resists the urging of Robert by declaring that "she is not ready." Moreover, in Season Two, in another flashback as the opening scene of the whole season, a slightly confused Arnold expresses his deep concern to Dolores over her future. His concern is less about the suffering she is to experience than about the power she will assume. "You frighten me sometimes, Dolores," he says. "Why on earth," she asks, "would you ever be frightened with me?" "Not of who you are now," he replies. "You are growing, learning so quickly. I am frightened of what you might become."

Westworld is an imaginative narration of the relationship between creator and created being which in turn interprets the opening of Genesis as an inspiring narrative, a foundational event of storytelling—an act of interpretation by which both the Judeo-Christian tradition and the scientific community have much to win. *Westworld* (as well as *Frankenstein*) can enrich the biblical text and deepen its truth instead of coming to a futile and superficial dichotomy between fiction and truth. Clearly, *Westworld* is not meant to prompt anybody, especially not the faithful, to treat Genesis as "just fiction" for the obvious reason that, particularly in the context of

Scripture, a phrase like that (i.e., sheer "untruth") does not make much sense. Moreover, science fiction as coupled with the grandeur of the biblical tradition can prove an interpretive help for the scientific community in their quest. There is no question that a wide gulf exists between the hosts in *Westworld* and current real-life robots, and also that current techno-scientific facts and the related savvy discourse have their own truth. But that truth in itself is a meager and incomplete one. It will never offer scientists and technologists a truthful mirror to perceive themselves as they really are and want to be.

CONCLUSION

In the introduction to this article, I promised to develop an argument that concludes on the triad of biblical tradition, science fiction, and science. Now it seems that "fiction" in general and "science fiction" in particular integrate under their auspices the two other notions. On the one hand, it is not just that the works of science fiction I have discussed, *Frankenstein* and *Westworld*, draw inspiration from the biblical tradition, but it is even more true that they throw light on the creation story in Genesis as a powerful piece of science fiction itself. On the other hand, the truth about a scientific idea suggested in *Frankenstein* and *Westworld* makes it plausible to presume that the main force behind the self-understanding of science and perhaps science's main source of inspiration are stories, narratives, and insights offered by fiction. What is, then, the truth about the scientific idea of the artificial humanoid? It is, at some intermediary level of understanding, that we are well-advised to treat artificial humanoids in terms of partnership and responsibility, in keeping with the biblical story of creation, and not according to the logic of mastery and servitude, as Mesopotamian myth suggests. This norm is spectacularly broken by Victor Frankenstein, but no less spectacularly kept by Arnold Weber and Robert Ford of Westworld. But there is a deeper level of understanding the artificial humanoid, and it is this deeper level that reveals the biblical story of creation as a real imaginative source of inspiration for science. What must move the science and technology of the artificial humanoid toward responsibility and moral greatness is not merely the biblical God's attitude of a responsible and moral partner, but also the stark and vital message of *Frankenstein* and *Westworld* that the significance of what is going on under the rubric of the "artificial humanoid" is only comparable to that of the birth and beginning of humankind. The only match for this scientific and technological idea and for the project behind it is the Bible's truthful, imaginative, and powerful fiction.

I have discussed a few ideas with focus on the "artificial humanoid," a term that could be an abbreviation standing for "the project of artificial intelligence and robotics," research fields that partly converge in this

direction. That such a convergence is more than a partial one and must have more than a secondary importance is well exemplified by the works of fiction and their interpretation I have presented in this article. And, there is no denying that the notion of the artificial humanoid as it has been discussed can have a bearing on the self-understanding of the fields of artificial intelligence and robotics. Nonetheless, through the concept of the artificial humanoid, these technological and scientific fields can react in response to our understanding of the creation story in Genesis. The idea of a partnership and a strong bond of responsibility between creator and creature which is undoubtedly present, but so easy for us to overlook in the biblical account, can come more emphatically to the fore under the influence of fiction interpreting and inspiring artificial intelligence and robotics. What is more, such works of science fiction can render the account in Genesis 1 and 2 a prophecy of the creation of artificial humanoids.

NOTES

1.   All biblical quotes are from the New King James Version.
2.   In the light of more recent scholarship, especially Albertz 1999, I modified Lambert and Millard's translation, replacing the word "uproar" with "commotion."

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