



## The Ship of Theseus Paradox: Possibilities and Limits of a Trans-/Posthumanist Interpretation

**Abstract** This chapter begins with a series of definitions of the nature of the human being taken from the entire history of philosophy, with the implicit invitation to relate them with the more or less explicit definitions of human beings typical of transhumanism and posthumanism. I highlight how in trans-/posthumanist conceptions of what is human the substantiability of the subject is reduced to a role of secondary importance. I also draw attention to how some mythological and angelological doctrines of the past anticipate problems that arise today when we consider the different possible cases of those particular subjects called cyborgs.

The famous question of the paradox of the ship of Theseus will then allow us to test its limits when applied to the unity of the human being. The discriminating aspect of this applicability revolves around the acceptance of the human being understood as a simple *aggregatum* or compost. A hypothetical mereology of the human will in fact have a totally different structure depending on whether it is understood as a unitary reality or pure multiplicity. The awareness of this fundamental dichotomy has been present since the ancient Roman jurists, where they spoke of unity as *hēnōmenon* or of a composite being understood as *synēmēnon*.

**Keywords** Ship of Theseus • Angels • Cyborgs • Human mereology

## I DEFINITIONS OF THE HUMAN BEING VERSUS HUMAN FRAGMENTATION (IN THE HISTORY OF WESTERN THOUGHT)

In the history of Western thought, whenever we have had to deal with a definition of what it means to be a human being, it is as if, at the same time, we have to deal with a crucial moment or a form of summary of this history. What can be considered definitions for various reasons (here abbreviated to Def. followed by a number)—but which I prefer to call “definitional discourses”—are never neutral positions. Indeed, they are the equivalent of a special “measuring tool”, with which to establish other criteria in the most diverse fields of human action. Scrutinizing the history of thought, aiming to identify various “definitional discourses” on the human being, is not a simple task that can be completed in a few pages and is not, above all, the main aim of this work. However, it is from here that it seems necessary and even simpler to start in order to then broaden the discussion to include current conceptions of the human being, the monstrous, and the mystical. My analysis will highlight some fundamental stages in the history of Western thought, chosen specifically so that each one provides an element of a picture that will gradually become clearer along the way.<sup>1</sup>

### *Brief Review of Definitional Discourses on the Human Being*

*Def. 0. Know yourself* (Γνῶθι σαυτόν). This is one of the most famous maxims in antiquity and is said to have been carved on the pediment of the temple of Apollo at Delphi and is also attributed to the Greek philosopher

<sup>1</sup>In posthumanist literature, there are few studies concerning historical-philosophical discussions, although they are now rapidly increasing. The following selection of studies address this subject: H.W. Baillie, T.K. Casey (Eds.) (2005). *Is Human Nature Obsolete? Genetics, Bioengineering, and the Future of the Human Condition* (Cambridge MA: MIT Press); F. Ferrando (2016). *Humans Have Always Been Posthuman: A Spiritual Genealogy of the Posthuman*. In D. Banerji, M.R. Paranjape (Eds.), *Critical Posthumanism and Planetary Futures* (New Delhi: Springer), 243–256; Pasulka, D. (2017). *The Pre-history of the Post Human: Precedents of Posthuman Thought in the Western Tradition*. In D. Pasulka, M. Bess (Eds.), *Posthumanism: The Future of Homo Sapiens* (Farmington Hills MI: Macmillan Reference), 51–59; Daigle C., T. H. McDonald (Eds.) (2023). *From Deleuze and Guattari to Posthumanism. Philosophies of Immanence* (London et al.: Bloomsbury).

Thales.<sup>2</sup> It is not a definition, but its religious origin and address to human beings indirectly raises questions from the outset about the essence of humans, and the relationship between human beings and their being able or required to know themselves: a simple starting point and at the same time a challenge to the research resources of the human being.

*Def. 1. Humans associated with water and earth in Greek mythology.* In Greek mythology, Prometheus, the Titan, shaped humans out of water and earth.<sup>3</sup> Once the deluge caused by Zeus subsided, Deucalion, Prometheus' son, and Pyrrha (who was the daughter of Epimetheus) were granted progeny by Zeus by casting stones behind them while walking: behind Deucalion the stones became men, and behind Pyrrha, they became women.<sup>4</sup> This mythical account is one of the simplest and most fascinating examples of the direct connection of human beings with the earth/mineral world, even if we should remember that the myth narrates that it is Zeus who controls everything.

*Def. 2. Aeschylus and the Oresteia trilogy.* Aeschylus' magnificent trilogy reveals a specific view of humans perpetuated by Classical Greek literature and in particular through the tragedy genre. In order to exemplify the *proprium* of tragedy I suggest an example from the second play, *The Libation Bearers* (*Choephoroi*), in which Orestes symbolizes the human being forced to act by choosing between two equally terrible opposing alternatives: on the one hand by violating the laws of vengeance commanded by the deities, as he should avenge the murder of his father, or on the other by killing his mother.

Thus, a fundamental defining character of human beings arises with the acknowledgment that life places human beings in situations in which they know they are obliged to make choices between equally terrible and irreconcilable alternatives. However, it is worth remembering that *The Oresteia*

<sup>2</sup> Cf. LCL, vol. 525 (2016). Early Greek Philosophy. Vol. II. Beginnings and Early Ionian Thinkers Part 1. Edited and translated by André Laks and Glenn W. Most in collaboration with Gérard Journée and assisted by Leopoldo Iribarren (from now onward LM) (Cambridge (MA)—London: Harvard University Press), 226–227. References to the edition by Hermann Diels and Walther Kranz will be shown with the conventional abbreviation “DK” in square brackets: H. Diels, W. Kranz (Eds.) (1951–1952—6th ed.). *Die Fragmente der Vorsokratiker* (Berlin: Weidmann). Thus, the reference to Thales is the following: LM 5P17d [DK 11A1].

<sup>3</sup> Cf. Ps-Apollodorus, *Biblioth.*, I, 7, 1 (45). With “Ps-Apollodorus” and the standard abbreviation following *Biblioth.*, I will refer from now on to the 1926 edition edited by Richard Anton Wagner: *Apollodori Bibliotheca. Pediasimi libellus De duodecim Herculis laboribus*. Ed. Richardus Wagner (Leipzig: Teubner).

<sup>4</sup> Cf. Ps-Apollodorus, *Biblioth.*, I, 7, 2 (48).

also included a satyr play, *Proteus*, as if to invite us to consider the need for a complementary part of human nature that is also capable of not taking itself too seriously. If with “*Def. 2*” we have illustrated a fundamental aspect of humans in a tragic sense, with “*Def. 2-bis*” we could introduce a comic-farcical “countermeasure”, also developed by the Greek genius, by providing an example with the joke about Socrates that we find at the beginning of Aristophanes’ *Clouds*:

- Strepsiades: Well, first of all tell me, please, what you’re up to.
- Socrates: I tread the air and scrutinize the sun.<sup>5</sup>

*Def. 3. Heraclitus and the limits of the soul.* Heraclitus remarks on the soul that “He who travels on every road would not find out the limits of the soul in the course of walking: so deep is its account (*logos*)”.<sup>6</sup> To this saying we could also add the following: “An account (*logos*) that increases itself is that of the soul”.<sup>7</sup>

*Def. 4. Anaxagoras: intelligence and hands.* Anaxagoras was the first thinker to give fundamental philosophical importance to intelligence, defined as the principle of everything and not as “part” of something. In reference to this, Aristotle writes:

Anaxagoras seems to say that soul is different from mind [*νοῦν*] [...] but he makes use of both of them as though of a single nature, except that, at least with regard to the principle of all things, it is mind [*τὸν νοῦν*] that he posits most of all—at least he says that this, alone of the things that are, is simple, unmixed, and pure. He assigns to the same principle both things, knowing and causing motion, saying that it is mind [*νοῦν*] that moves the whole.<sup>8</sup>

<sup>5</sup> Cf. Aristophanes, *Nephelai*, 223–224. English quotation taken from LCL, vol. 488 (1998). Aristophanes. *Clouds. Wasps. Peace*. Edited and translated by Jeffrey Henderson (Cambridge (MA)—London: Harvard University Press), 39.

<sup>6</sup> Cf. LM 9D98 [DK 22B45]. English quotation taken from LCL, vol. 526 (2016). *Early Greek Philosophy*. Vol. III. *Early Ionian Thinkers Part 2*. Edited and translated by André Laks and Glenn W. Most in collaboration with Gérard Journée and assisted by Leopoldo Iribarren (Cambridge (MA)—London: Harvard University Press), 189.

<sup>7</sup> Cf. LM 9D99 [DK 22B115]. *Ibidem*. See also note 1: “Perhaps: ‘Soul is an account that increases itself’”. *Ibidem*.

<sup>8</sup> Cf. LM 25R13 [DK 59A55]. English quotation taken from LCL, vol. 529 (2016). *Early Greek Philosophy*. Vol. VI. *Later Ionian and Athenian Thinkers Part 1*. Edited and translated by André Laks and Glenn W. Most in collaboration with Gérard Journée and assisted by Leopoldo Iribarren (Cambridge (MA)—London: Harvard University Press), 143.

Apart from these considerations on the nature of intelligence, I also find the Clazomenae philosopher's reflections on the human hand highly interesting, again through Aristotle, who states: "Anaxagoras says that the human being is the most intelligent of the animals because he has hands [...]"<sup>9</sup>

*Def. 5. Plato: the divine nature of the soul and the chariot.* The message on the nature of human beings that Plato conveyed may be briefly summarized as the simple equivalence between human beings and their souls, which are immortal, therefore not dying with the body. The words that most clearly express this concept are probably those condensed in Socrates' ingenious and calm irony in the concluding part of the *Phaedo*, when Socrates, now on the verge of drinking the potion that will cause his death, responds to Crito, who asks him for instructions on how he would like to be buried, with these words:

"However you wish," he [Socrates] said. "That is if you can catch me, and I don't escape your clutches." At the same time, he laughed quietly and looking across at us he said: "I can't persuade Crito, my friends, that I am this Socrates, who is now talking and putting in order each of the topics discussed. Instead, he [Crito] thinks I'm that man whom he'll see as a corpse a little later, and he's actually asking how to bury me!"<sup>10</sup>

The doctrines of the mystery cults and in particular the doctrine of the transmigration of the soul after death certainly influenced Plato. Although the doctrine of the soul in Plato can at first glance be presented as a clearly dualistic view of the soul and body, some aspects still remain so complex that the doctrine cannot be reduced to a merely dichotomous view, with a body that is purely ancillary or irrelevant. Indeed, in the myth of the winged chariot, the chariot expresses a bodily component that constitutes, at least for some scholars, one of the first lucid examples of corporeality *sui generis* also accompanying the soul in the world of the hyperuranion.<sup>11</sup> Plato also reiterates the theme of the vehicle (*ochēma*) in the *Timaeus* as something necessarily related to the soul.<sup>12</sup>

<sup>9</sup>Cf. LM 25D80 [DK 59A102]. Ibidem, 115.

<sup>10</sup>Cf. Plato, *Phaedo*, 115 C-D. English quotation taken from LCL, vol. 36 (2017). Plato. *Euthyphro. Apology. Crito. Phaedo*. Edited and translated by Chris Emlyn-Jones and William Preddy (Cambridge (MA)—London: Harvard University Press), 513.

<sup>11</sup>Cf. Plato, *Phaedrus* (246A and following). In addition, see the considerations on "ethereal demons" and "aerial demons" in the *Epinomis*, which, although generally considered to be inauthentic, nevertheless, still sums up a genuinely Platonic doctrine.

<sup>12</sup>Cf. Plato, *Timaeus*, 69 C7. I will return to this issue in § 2.

*Def. 6. and Def. 7. Aristotle: the human being as “political animal” (politikòn zòon) and “rational animal” (zòon logon echon).* We will now see two famous definitions<sup>13</sup> by Aristotle concerning the human being<sup>14</sup> as a “political animal” who “possesses speech”, both in the *Politics*, Book I (*Politics*, A, 1253a3 and 1253a 10–11). I refer to the part in the work in which the two definitions are cited, since Aristotle also adds other observations that are interesting for this discussion:

From these things therefore it is clear that the city-state is a natural growth, and that man is by nature a political animal, and a man that is by nature and not merely by fortune citiless is either low in the scale of humanity or above it [...]. And why man is a political animal in a greater measure than any bee or any gregarious animal is clear. For nature, as we declare, does nothing without purpose; and man alone of the animals possesses speech. The mere voice, it is true, can indicate pain and pleasure, and therefore is possessed by the other animals as well (for their nature has been developed so far as to have sensations of what is painful and pleasant and to signify those sensations to one another), but speech is designed to indicate the advantageous and the harmful, and therefore also the right and the wrong; for it is the special property of man in distinction from the other animals that he alone has perception of good and bad and right and wrong and the other moral qualities, and it is partnership in these things that makes a household and a city-state. Thus, also the city-state is prior in nature to the household and to each of us individually. For the whole must necessarily be prior to the part; since when the whole body is destroyed, foot or hand will not exist except in an equivocal sense, like the sense in which one speaks of a hand sculptured in stone as a hand; because a hand in those circumstances will be a hand spoiled [...].<sup>15</sup>

According to Aristotle, only an animal or a God can do without the “state”, to the extent that this need for social life becomes a *diagnostic feature* of the human being. It is also noteworthy that the “state” is qualified as something that exists in itself, something necessarily prior to the

<sup>13</sup>We note in passing that Aristotle can be considered the father of binomial definitions, which means they are based on the distinction between gender and specific difference, which would influence taxonomy up to the present in terms of a “hierarchical vision”.

<sup>14</sup>In this case it is not of minor importance to remember that Aristotle uses the male noun *ànthropos* (ἄνθρωπος).

<sup>15</sup>Cf. Aristotle, *Pol.*, A, 1253a 1–23. English quotation taken from LCL, vol. 21 (1990). Aristotle in 23 Volumes. *Politics*. With an English translation by H. Rackham (Cambridge (MA)—London: Harvard University Press), 9–11.

parts. Finally, I wish to draw attention to the translation of the Greek text crystallized for centuries with the Latin formula *animal rationalis*, a formula that is anything but obvious. Indeed, the importance of the word for humans is on a par with the opportunities for relationships that the word offers, and consequently it seems to me appropriate to note that “relational animal” could also be proposed as a possible alternative translation.<sup>16</sup>

*Def. 8. Late Antiquity and the Middle Ages: the human being as “mortal rational animal”.* The definition “mortal rational animal” is one of the most famous that has been attributed to human beings, a definition with complex origins which has been influential for centuries. The genealogy of this definition has been meticulously reconstructed by Giovanni Catapano, a distinguished medievalist at the University of Padua.<sup>17</sup> Originating probably with Chrysippus, and then taken up by Cicero, Quintilian, and Apuleius, we come to Marius Victorinus, who adds an interesting complement to the definition, which I can specify as *Def. 8-bis*: “animal rationale terrenum bipes risus capax” (rational terrestrial biped animal capable of laughter). While the terms “terrestrial” and “biped” most likely derive from Aristotle’s *Topica*, being “capax risus”, according to Catapano, could have origins in Porphyry’s *Isagoge*. Catapano also claims that Augustine is the first Latin author to systematically use the definition “mortal rational animal” without further additions.<sup>18</sup>

*Def. 9. Pico della Mirandola’s Oratio De Homini Dignitate.* Florentine Humanism represents a decisive cultural shift, in which the weight of the theological-religious tradition does not hinder a genuine effort to

<sup>16</sup> Cf. E. Bartolini (2019). The human being as ζῷον λόγον ἔχον. The relational animal. In A. Le Moli, R. Mirelli (Eds.), *Nature umana: Ischia International Festival of Philosophy 2018: La filosofia, il castello e la torre* (Palermo: Palermo University Press), 167–177.

<sup>17</sup> Cf. G. Catapano (2020). *Trasumanar*. A few Medieval examples of the human being as a mortal rational animal and surpassing these limits. *Medioevo*, 45, 31–52.

<sup>18</sup> Cf. Catapano (2020), 35. Catapano’s article draws on a critique of the cursory considerations on Medieval thought in an article by Nick Bostrom. See N. Bostrom (2005). A History of Transhumanistic Thought. *Journal of Evolution and Technology*, 14/I, 1–25. See also: [www.nickbostrom.com/papers/history.pdf](http://www.nickbostrom.com/papers/history.pdf). What is most interesting in Catapano’s article is the fact that he sets out the attempts made by Medieval thinkers to go beyond each of the three words in the definition. Hence, the terms “mortal”, “rational”, and “animal” are in turn systematically considered in their semantic evolution during the Middle Ages, with the aim of illustrating how the desire to surpass the “human” not only is not a recent philosophical aspiration (perhaps exemplified by Nietzsche’s *Zarathustra*) but is a concern that has also been openly expressed in the 1000-year-old history of Medieval thought.

undertake theoretical inquiry. Pico della Mirandola is the master of aiming to reconcile all human knowledge with the truths of religion, including that particular knowledge frowned upon by religious authorities, namely, the magical esoteric and cabalistic disciplines. The outstanding result is epitomized in the *Conclusiones Nongentae* and the preliminary *Oratio* (1486) in which, imagining a dialogue between God and Adam, Pico assigns to human freedom the privilege of being able to make it possible for Adam to shape himself in the way he desires, so that, if he wishes, he may attain the excellence of angels:

17. At length, the Master Creator decreed that the creature to whom He had been unable to give anything wholly his own should share in common whatever belonged to every other being.

18. He therefore took man, this creature of indeterminate image, set him in the middle of the world, and said to him: “We have given you, Adam, no fixed seat or form of your own, no talent peculiar to you alone. This we have done so that whatever seat, whatever form, whatever talent you may judge desirable, these same may you have and possess according to your desire and judgment.

19. Once defined, the nature of all other beings is constrained within the laws We have prescribed for them.

20. But you, constrained by no limits, may determine your nature for yourself, according to your own free will, in whose hands We have placed you.

21. We have set you at the center of the world so that from there you may more easily gaze upon whatever it contains.

22. We have made you neither of heaven nor of earth, neither mortal nor immortal, so that you may, as the free and extraordinary shaper of yourself, fashion yourself in whatever form you prefer.

23. It will be in your power to degenerate into the lower forms of life, which are brutish. Alternatively, you shall have the power, in accordance with the judgment of your soul, to be reborn into the higher orders, those that are divine.”<sup>19</sup>

<sup>19</sup> Cf. Pico Della Mirandola, *Oration on the Dignity of Man*, §§ 17–23, in: Pico Della Mirandola (2012). *Oration on the Dignity of Man*. A new translation and commentary. Edited by Francesco Borghesi, Michael Papio, Massimo Riva (New York: Cambridge University Press), 115–117.

Scholars have pointed out the strong influence of Plato’s *Symposium*, as well as a few Church Fathers, especially Clement of Alexandria and Nemesius of Emesa on Pico for the notion of the halfway position of human beings. Indeed, the idea of an intermediate position of humans between irrational and rational nature clearly emerges (cf. Nemesius of Emesa, *De Natura Hominis*, I, 14–15).

*Def. 10. Giordano Bruno and the fundamental importance of hands.* For Bruno, there is a common denominator in all living things, namely the soul, which in a certain sense enables them all to be placed on the same level: “that of the human [*scil.* the soul] is the same in specific and generic essence as that of flies, sea oysters, and plants, and of anything whatsoever that one finds animated or having a soul, as no body lacks a more or less lively communication of spirit within itself”.<sup>20</sup> What distinguishes living things is their different physical constitution (*complezione*) which causes the most diverse and characteristic potentialities to be determined in each individual. Bruno goes so far as to say, immediately after the quote, that if the soul of a spider or a snake were to take on a human body, they would consequently acquire another type of intelligence and other capabilities, for in that case they would be nothing more than human beings.<sup>21</sup> Furthermore, according to Bruno, the chief feature that characterizes human beings as the true creators of “human greatness and excellence” are hands:

And consequently, where would be the institutions of knowledge, the inventions of disciplines, the congregations of citizens, the structures of the buildings and other things in great quantity that signify human grandeur and excellence, and make man truly the victor over the other species? All this, if you look cautiously, refers primarily not so much to the style of mind, as to that of the hand, organ of the organs.<sup>22</sup>

*Def. 11. The Cambridge Platonists and the human being as “animal capax religionis”.* At the dawn of the modern age, with the Cambridge Platonists and the Latitudinarians we find philosophical thought often overshadowed by the more famous and successful British empiricist tradition, but certainly no less important for that. In particular, I wish to recall the traditional conception of the Cambridge Platonists (especially Benjamin Whichcote, John Smith, and Henry More) and some “latitude men” (such as John Wilkins) who consider man as an *animal religiosum* or

<sup>20</sup>Cf. G. Bruno, *The Cabala of Pegasus*, II Dialogue [First Part], in: Giordano Bruno (2002). *The Cabala of Pegasus*. [1585] Translated and annotated by Sidney L. Sondergard and Madison U. Sowell (New Haven; London: Yale University Press), 56.

<sup>21</sup>Ibidem, 56–57.

<sup>22</sup>Ibidem, 58.

“animal capable of religion” (*animal capax religionis*).<sup>23</sup> Whichcote, for example, argues that while in some respects rationality can find imitations in animals, the specific employment of reason, whereby the human subject can be said to be properly rational, is precisely constituted by “religious capacity”: “[...] for I account *nothing is more specifick to man than capacity of religion, and sense of Deity*”.<sup>24</sup>

*Def. 12. Leibniz: “the knowledge of eternal and necessary truths is what distinguishes us from simple animals”.* In the *Monadology* (1714) Leibniz attributes the difference between human beings and animals to the fact that the former can rise to the knowledge of necessary and eternal truths, knowledge that essentially becomes one with the activity of what we may call the “reasonable soul” or “mind” (*esprit*) within us. Leibniz argues that through such knowledge we are able to rise to reflective acts, which, beginning with knowledge of ourselves, then enables us to acquire other knowledge:

[29.] But the knowledge of eternal and necessary truths is what distinguishes us from simple animals and furnishes us with *reason* and the sciences, by raising us to a knowledge of ourselves and of God. And that is what we call the rational soul, or *mind* [*Esprit*], in ourselves.

[30.] It is also through the knowledge of necessary truths and through their abstractions that we rise to *reflective acts*, which enable us to think of that which is called “I” and enable us to consider that this or that is in us. And thus, in thinking of ourselves, we think of being, of substance, of the simple and of the composite, of the immaterial and of God himself, by conceiving that that which is limited in us is limitless in him. And these reflective acts furnish the principal objects of our reasonings [...].<sup>25</sup>

*Def. 13. d’Holbach: “the soul is only the body itself considered relatively to some of its functions”.* In *The System of Nature* (1770), d’Holbach, one of the leading advocates of philosophical materialism during the Enlightenment, regards the human being as constantly subject to the laws of matter. The human being is organized matter itself, a product of nature,

<sup>23</sup> On this matter, I recommend the following fundamental work: M. Micheletti (1984). “*Animal capax religionis*”. *Da Benjamin Whichcote a Shaftesbury* (Perugia: Benucci).

<sup>24</sup> Cf. B. Whichcote, *Discourse LX*, in: B. Whichcote (1751) [1701, post.]. *The Works of the Learned Benjamin Whichcote*. Vol. III. (Aberdeen: J. Chalmers), 237 (Italics in the original text).

<sup>25</sup> Cf. Leibniz, *Mon.*, §§ 29–30 (GP VI, 611–612)—AG, 217.

a material entity immersed in the causal network of the mechanical-natural events of the universe. The ignorance that human beings have of the laws of matter has led them to consider themselves “double”, to divide themselves into “physical” being (the body) and “moral” being (the soul).<sup>26</sup> Moreover, the predilection that human beings have for themselves has led them to believe to be privileged in nature. d’Holbach argues that to speak of divinity or creation is again tantamount to displaying ignorance of the energy of nature and how human beings could have come into being. In fact, man is not “double”, and what we call the soul is itself a body, ultimately corresponding to activity in the brain:

The more man reflects, the more he will be convinced that the soul, very far from being distinguished from the body, is only the body itself considered relatively to some of its functions, or to some of the modes of existing or acting of which it is susceptible whilst it enjoys life. [...] Those who have distinguished the soul from the body, appear only to have distinguished their brain from themselves. Indeed, the brain is the common centre where all the nerves, distributed through every part of the body, meet and blend themselves: it is by the aid of this interior organ that all those operations are performed which are attributed to the soul: it is the impulse, the motion, communicated to the nerve, which modifies the brain: in consequence, it reacts, and gives play to the bodily organs, or rather it acts upon itself, and becomes capable of producing within itself a great variety of motion, which has been designated *intellectual faculties*.<sup>27</sup>

*Def. 14. Kant: the human being as “the most important object in the world”.* In Kant’s *Jäsche Logik* (1800), the famous guiding questions of Kant’s theoretical discourse all prove to be conclusively subordinate to the one question that asks, “What is man?”:

<sup>26</sup> “Thus man became double; he looked upon himself as a whole, composed by the inconceivable assemblage of two distinct natures, which had no point of analogy between themselves: he distinguished two substances in himself; one evidently submitted to the influence of gross beings, composed of coarse inert matter: this he called *body* — the other, which he supposed to be simple, and of a purer essence, was contemplated as acting from itself, and giving motion to the body with which it found itself so miraculously united: this he called *soul or spirit* [...]”. Cf. P. H. T. d’Holbach (1889) [1770]. *The System of Nature, or, Laws of the Moral and Physical World*. New and improved edition, with notes by Diderot. Translated, for the first time, By H. D. Robinson (Boston: J.P. Mendum), Chap. VI, 43.

<sup>27</sup> *Ibidem*, Chap. VII, 52 (Italics in the original text).

The field of philosophy in this cosmopolitan sense may be brought down to the following questions:

1. *What can I know?*
2. *What ought I to do?*
3. *What may I hope?*
4. *What is man?*

*Metaphysics* answers the first question, *morals* the second, *religion* the third, and *anthropology* the fourth. Fundamentally, however, we could reckon all of this as anthropology, because the first three questions relate to the last one.<sup>28</sup>

Although less well known than the other famous critical works, *Anthropology from a Pragmatic Point of View* (1798) proves to be fundamental to find an answer to the basic question of “What is man?”. In his *Preface*, Kant argues in the simplest way that the human being is the most important creature in the world:

All cultural progress, by means of which the human being advances his education, has the goal of applying this acquired knowledge and skill for the world’s use. But the most important object in the world to which he can apply them is the human being: because the human being is his own final end.—Therefore, to know the human being according to his species as an earthly being endowed with reason especially deserves to be called *knowledge of the world*, even though he constitutes only one part of the creatures on earth.<sup>29</sup>

*Def. 15. Hegel: consciousness subject to the recognition of another’s consciousness.* In the process described by Hegel in the *Phenomenology of Spirit* (1807), where consciousness gradually becomes aware of its relation to the whole and the absolute, there is a moment in which, to continue its journey, self-consciousness finds no other satisfaction than through interaction/opposition with another self-consciousness. Hegel realizes to a certain extent that it is necessary to acknowledge the absolute importance

<sup>28</sup> Cf. I. Kant [1800]. *The Jäsche Logic*, in: I. Kant (1992). *Lectures on Logic*. Translated and edited by J. Michael Young (Cambridge et al.: Cambridge University Press), 538.

<sup>29</sup> Cf. I. Kant (2006) [1798]. *Anthropology from a Pragmatic Point of View*. Translated and edited by Robert B. Louden with an Introduction by M. Kuehn (Cambridge—New York: Cambridge University Press), 3 (Italics in the original text).

of consciousness over any other natural reality: “*Self-consciousness achieves its satisfaction only in another self-consciousness*”.<sup>30</sup> It is only by acknowledging this importance that the dialectical process of “recognition” can be set in motion, no other natural object being able to fulfill this task.

What still lies ahead for consciousness is the experience of what Spirit is—this absolute substance which is the unity of the different independent self-consciousnesses which, in their opposition, enjoy perfect freedom and independence: ‘I’ that is ‘We’ and ‘We’ that is ‘I’. It is in self-consciousness, in the Notion of Spirit, that consciousness first finds its turning-point [...].<sup>31</sup>

*Def. 16: Nietzsche and the “overman”.* In the Prologue of Friedrich Nietzsche’s *Thus Spoke Zarathustra*, Zarathustra, at the beginning of his sermon expresses himself in the following terms:

*I teach you the overman [Übermensch]. Human being is something that must be overcome. What have you done to overcome him? All creatures so far created something beyond themselves; and you want to be the ebb of this great flood and would even rather go back to animals than overcome humans?*<sup>32</sup>

That humans must be “overcome” is a clear message throughout the book. The *overman* is, as it were, the upper limit to which man seems destined, leaving behind the lower limit of the beast: “Mankind is a rope fastened between animal and overman – a rope over an abyss”.<sup>33</sup>

*Def. 17. Scheler’s The Human Place in the Cosmos.*

Scheler argues that the very essence of the human being consists in “the impossibility of becoming the object of a definition” and further believes that the human being is only a “border”, “a manifestation of God”, and

<sup>30</sup> Cf. G.W.F. Hegel (1977) [1807]. *Phenomenology of Spirit*. Translated by A. V. Miller with analysis of the text and foreword by J. N. Findlay (Oxford et al.: Oxford University Press), 110 (Italics in the original text).

<sup>31</sup> Ibidem.

<sup>32</sup> Cf. F. Nietzsche (2006) [1883–1885]. *Thus Spoke Zarathustra. A Book for All and None*. Edited by Adrian Del Caro and Robert B. Pippin. Translated by Adrian Del Caro (Cambridge et al.: Cambridge University Press), Zarathustra’s Prologue, § 3, 5.

<sup>33</sup> Cf. Ibidem, Zarathustra’s Prologue, § 4, 7. Whether Nietzsche is a precursor of transhumanism is an ongoing scholarly debate: cf. S.L. Sorgner (2021). *On Transhumanism*. Translated by Spencer Hawkins (University Park: Pennsylvania State University Press), Ch. 4, 57–72.

an eternal “transcendence” of life beyond itself.<sup>34</sup> As regards his work *The Human Place in the Cosmos* (1928), it has some particularly interesting explanations of the exclusive character of the human being:

Insofar as he is a “person,” only the human being is able to *soar* far above his status as a living entity and, from a center beyond the spatio-temporal world, make *everything* the object of his knowledge, including himself. It is in this sense that the human being as spirit is superior to both himself and to the world. Thus, he is also open to irony and humor, which always imply the ability to rise above one’s own existence.<sup>35</sup>

Equally interesting is his view that human beings can never be equal to animals: either they will always be above, or they will always be below, but never on the same level.<sup>36</sup>

### *Fading and Fragmentation of the Human Subject Versus Irreducible Unity*

The list above could certainly have been broader and more extensive, but perhaps it would not have changed much in terms of our aim. It could have been enough just to offer a few examples, to show that in fact the more we probe the field of defining what is human, the more additional areas for exploration are revealed. Each of the definitions presented above certainly exalts precise aspects of the human being: the tragic and comic visions; being able to grasp the specificity of language and body (see the section on hands); gaining insight into the essential importance of the

<sup>34</sup>“Der Irrtum der bisherigen Lehren vom Menschen besteht darin, daß man zwischen ‘Leben’ und ‘Gott’ noch eine feste Station einschieben wollte, etwas als *Wesen* Definierbares: den ‘Menschen’. Aber diese Station existiert nicht und gerade die *Undefinierbarkeit* gehört zum *Wesen* des Menschen. Er ist nur ein ‘Zwischen’, eine ‘Grenze’, ein ‘Übergang’, ein ‘Gotterscheinen’ im Strome des Lebens und ein ewiges ‘Hinaus’ des Lebens über sich selbst”. Cf. M. Scheler (1915). *Zur Idee des Menschen*, in: Max Scheler (1972). *Gesammelte Werke*, Bd. 3. (Bern—München: Fracke Verlag), 186. See also the reference to “Theomorphismus” in his famous *Der Formalismus in der Ethik und die materiale Wertethik* (1916), in: Max Scheler (2000). *Gesammelte Werke*, Bd. 2. (Bonn: Bouvier Verlag), 293 ff.

<sup>35</sup>Cf. M. Scheler (2009) [1928]. *The Human Place in the Cosmos*. Translated from the German by Manfred Frings. Introduction by E. Kelly (Evanston: Northwestern University Press), 33.

<sup>36</sup>“It has been justifiably said that human beings can be *more* than animals and *less* than animals, but they can never be an animal”. Ibidem, p. 21.

social and political dimension; the ability to comprehend the incorporeal or the immaterial; the ability to perceive oneself as the maker (*faber*) of one's own destiny; the ability of humans to discern themselves dynamically in Nature and many other considerations could be made from the above-mentioned examples.

However, it is my belief that each of these considerations may tie in with the themes of the others as well, in an endless play of research, perhaps enigmatically announced and encapsulated by the Delphic motto seen in *Def. 0*. An equally fascinating challenge is also to view them all together and ask the simple question common to all: what remains today of all these defining discourses on humanness? Moreover, is it possible to integrate the invaluable wealth of reflections on human beings that are over thousands of years old with contemporary visions of transhumanism/posthumanism? Or are we to think that the underlying aim of trans-/posthumanist thought is simply to reset the past, turn a new page once and for all, and consider a liquid human subjectivity that no longer has its own dimension worthy of prominence in relation to the whole other aggregate of living and non-living entities?

In my brief *excursus*, I have stopped at the beginning of the twentieth century, because I think something unique happened in that period. The first half of the twentieth century gave human history a new impetus, particularly during the interwar period. It is as if during that period a kind of bottleneck arose in which a flooding river accelerates, bringing with it a greater destructive force. Moreover, the that-toward-which the destructive force accelerates is precisely the *unity* of the human subject, put to the test by two such catastrophic events as the two world wars and the flourishing of new revolutionary theories in the empirical sciences, in philosophy, and in art. Indeed, the latter may have foreshadowed the impending revolutionary change first and well in advance, revealing distinctive messages. For example, Edvard Munch's *The Scream* (1893) masterfully depicts anguished and despairing humanity in which the contours defining the human face are minimal and skeletal, ominously anticipating the sunken faces of inmates in concentration camps. Giorgio De Chirico's human mannequins have no eyes, ears, nose, or mouth, assemblages of basic pieces, covered, supported, and inserted among other inanimate realities. Long before French post-structuralism, the "partitioning" of the transhumanist subject and the potential indistinct universal mix in the posthumanist subject are rooted in the crucible that forged ideas in the early twentieth century.

The unity of the human subject was already put to the test by the Nietzschean call to destroy and overcome traditional moral and religious forms of conditioning. In psychoanalysis, the unity of the human subject was tested by the formation of theories of forces antagonistic to the personal self that reduce consciousness to the mere tip of an iceberg, in the depths of which coexist enormous, submerged powers (the *Id*) and other conditioning forces (such as the *Super-Ego* and the brute antagonism of external reality). It is no wonder that Foucault writes about the erasure of humans, as a face drawn in the sand is erased by the waves on the shoreline.<sup>37</sup> It is hardly surprising that in the second half of the twentieth century, and at the beginning of the third millennium, with the advent of digitization and today's trends of the so-called fourth industrial revolution, human beings run the risk, so to speak, of "falling behind", engaged—at best—in collecting their own fragments.

There is another important consideration that deserves to be highlighted concerning all past and future definitions of the human being. A fundamental test awaits every subject who faces a defining discourse on humanness: there comes for each one the moment when it needs to be decided what *meaning/value* to give to that particular unity we call the human subject, beginning with whether or not to attribute to it a unity, thus its own autonomy, its own value, its own "substantiality".

This is not a purely metaphysical decision that looms large for us all, but a decision that is at the same time also an ethical decision, since it is a *value judgment* that we are ultimately called upon to make in such a metaphysical decision, even before a purportedly impersonal, strictly epistemological judgment on the establishment or fully logical consistency of a system. This book proposes the search for an irreducible unity of the "individual subject", despite the impossibility to provide any comprehensive definition. Indeed, being able to understand oneself as a being constantly moving forward toward one's own self-overcoming does not prevent the human being from also recognizing elements that resist any type of destruction, such as the *unity of consciousness*, despite its possible interruptions or fading; the *unity of a "sense/meaning"* that can be grasped

<sup>37</sup> "If those arrangements were to disappear as they appeared, if some event of which we can at the moment do no more than sense the possibility—without knowing either what its form will be or what it promises—were to cause them to crumble, as the ground of Classical thought did, at the end of the eighteenth century, then one can certainly wager that man would be erased, like a face drawn in sand at the edge of the sea". Cf. M. Foucault (1971) [1966]. *The Order of Things* (New York: Pantheon Books), 387.

only through *one* intelligence; the recognition of the phenomenon of life as an example of an original reality that cannot be reconstructed artificially “from the outside”.

## 2 ANGELS AND CYBORGS AS PARADIGMATIC EXAMPLES OF ULTRA-/META-HUMANISM

The defining discourse on human beings would remain insufficient if we omitted to recall the history of speculation, just as old as that considered above, addressed to those entities that, across most civilizations and cultural-religious traditions in history, have been conceived as intermediate in nature between pure divinity and human being.

To avoid such reflections being necessarily considered as *ante litteram* precursors of transhumanism or posthumanism, I have preferred to use the expressions “ultra-humanism” and “meta-humanism” in the title of this paragraph. I will discern two main types of ultra-/meta-human beings: (i) those endowed with an ultra-human nature, different from human nature (“Angels and *Daimones*”) and having no need for human intervention; (ii) and those who owe their entire meta-human reality (“Cyborgs”) to engineering. For the sake of simplicity, I will therefore speak of angels in the first case and “human constructions” (cyborgs) in the second, deliberately leaving out of my discourse the various cases of other “mythical beings”, such as vampires, zombies, werewolves or golems, which do appear with some frequency in trans-/posthumanist literature.

The aim of this paragraph is not to show at all costs precursors of mental or physical prototypes that seem to be created nowadays, but rather to briefly illustrate the existence of an extensive doctrinal-cultural tradition, which in my view is capable of also affecting the dialogue within transhumanism and posthumanism. To this end, especially regarding considerations on angels, my discourse will only focus on the philosophical aspect of the Western tradition, with particular reference to the question of angelic corporeality, without getting involved in theological-revelatory issues, as far as the nature of that theme allows.

### *Angels and Daimones*

For those who are familiar with angelological issues, it is surprising to note the variety of analogies or “conceptual isomorphisms” found in various

fields of contemporary science, art, and philosophy. Transhumanism and posthumanism, with a wide range of relevant literature, are also no exception. Indeed, this is what attracted my attention on several occasions. A simple example to illustrate this is that of the German philosopher Habermas when he refers to the possibility of mind uploading in terms of transferring an angelic intelligence to a hard drive.<sup>38</sup> However, the vocabulary used by authors writing about artificial intelligence (AI) frequently contains other key terms. In Nick Bostrom's *Superintelligence: Paths, Dangers, Strategies*, which makes room for terms like "oracles", "genies", and "sovereigns", the analogy between "genies" and "angels" (and "principalities" as well) is clear. The same concept of "superintelligence" evokes the larger intelligence of a superior mind, with peculiar forms, capabilities, "cognitive superpowers", and a peculiar "superintelligent will".<sup>39</sup> Likewise, Max Tegmark's terms suggest interesting analogies, among which a key term may be that of "cosmic hierarchies".<sup>40</sup> However, in my view the blend of angelological discourse and trans-/posthumanism has far greater resources than these sporadic and perhaps unconscious references. The angelological discussion that I would like to briefly propose here—more by way of an overview and research project than of actual in-depth study—is organized along two lines: in the first (a) I will discuss the deification, demonification, and angelification of the human being; in the second (b) I will consider the complex and fascinating question of angelic corporeality.

(a) It is difficult to summarize the use of the ancient term *daimon* (δαίμων) due to its multiple archaic meanings, since not only it serves to denote intermediate entities between the human and the divine, but it is also employed referring to the supreme deities themselves. This is another reason why the *daimon* is the quintessential hybrid entity, as is the Judeo-Christian equivalent, *angelus*. Equally broad and occasionally vague are the double meanings indicating the good or evil character of such entities. In Aeschylus' *Oresteia*, "demonic forces" appear distinctly due to the

<sup>38</sup> "Bodies stuffed with prostheses to boost performance, or the intelligence of angels available on hard drives, are fantastic images. They dissolve boundaries and break connections that in our everyday actions have up to now seemed to be of an almost transcendental necessity". Cf. J. Habermas (2003) [2001]. *The Future of Human Nature* (Cambridge: Polity), 41.

<sup>39</sup> Cf. N. Bostrom (2014). *Superintelligence: Path, Dangers, Strategies* (Oxford: Oxford University Press), especially Ch. 10.

<sup>40</sup> Cf. M. Tegmark (2017). *Life 3.0. Being Human in the Age of Artificial Intelligence* (New York: Alfred A. Knopf), especially Chap. 6.

action of the Erinyes, but it would not be until the late Hellenistic age that *daimon* became increasingly associated with a negative meaning, while conversely, the term *angelus*, with the rise of Christian thought, would gradually be considered positive.

Plato's speculation on demonology, which provided such doctrines with an initial systematic order, is certainly drawn from a range of earlier doctrines and beliefs rooted in mythology, mystery religions, and the wisdom-religious influence of Egyptian and Eastern thought. Platonic demonology would later evolve with the Scholarchs at the Academy (Speusippus and Xenocrates).<sup>41</sup> In the subsequent history of ancient philosophy, at least two other issues would provide further impetus, lending considerable weight to demonological-angelological thought: the question of Socrates' *demon*—where in this case we find the term *δαίμόνιον* as a related term to *δαίμων* and with a similar destiny—and then the question of *intelligences* responsible for the motion of the celestial spheres/heavens. The first question, addressed in such celebrated works by Plato as the *Apology of Socrates* and the *Phaedrus*, would later be taken up by authors such as Plutarch and Apuleius. On the other hand, the second question draws on Aristotle's cosmological argument and runs through the history of astronomy, philosophy, and angelology at least until late Scholasticism.

Ancient mythical thought displays a wide range of tales in which human individuals are elevated to the divine rank of higher beings, invisible or visible in the sky, such as in the stars. Callisto, in the version of the myth that considers her to be the daughter of king Lycaon or other mortal fathers, after being seduced by Zeus and then turned into a bear by him, is finally raised to the heavens and transformed into the constellation of Ursa Major.<sup>42</sup> Great masters of ancient thought from Pythagoras through Empedocles to Plotinus rose after their deaths to a supra-human rank because of their wisdom and virtue.<sup>43</sup> Within Gnostic thought, elevation

<sup>41</sup> For example, see also: A. Timotin (2012). *La démonologie platonicienne: histoire de la notion de daimon de Platon aux derniers néoplatonicienne* (Leiden: Brill).

<sup>42</sup> Cf. Ps-Apollodorus, *Biblioth.*, III, 8, 2 (101).

<sup>43</sup> Cf. M. D. Litwa (2021). *Posthuman Transformation in Ancient Mediterranean Thought. Becoming Angels and Demons* (Cambridge et al.: Cambridge University Press). Litwa provides a broad, thorough overview of the processes of “demonification” and “angelification”, from Hesiod to late antiquity, in particular focusing on the cases of Empedocles, Plato, Philo of Alexandria, and Origen and on the mysterious figure of Zostrianos. Without detracting from Litwa's excellent work, we note here that the meaning he attributes to the term “post-human” is almost exclusively in the context of transhumanism.

to divine rank was the condition reserved for the so-called *pneumatics*, the highest order of humans.

In Origen's thought, the processes of *angelification* and *demonification* evolve in a decidedly original way. The much-discussed Church Father, by essentially combining all rational natures on the same level, those of human beings and of angels and demons, provides a novel revisitation of the ancient doctrine of metempsychosis, transforming it into the possibility for all rational natures, through free will, to be able to ascend or descend in the degrees of perfection of living beings:

From which, so I think, this consequence appears to be demonstrated, that every rational being is able, passing from one order to another, to go from each order to all and from all to each, while it continues, through its faculty of free will, susceptible of promotions and demotions according to its own actions and efforts.<sup>44</sup>

The premise to this conception is the doctrine that every rational nature needs a unique, suitable physical support. Origen here simply refers to a long-established and widely held conception, namely the above-mentioned doctrine of the "vehicle" of the soul, which now introduces us to the next point.

(b) A key passage in Plato's *Timaeus*, where the Demiurge places the soul in a particular "vehicle" (*ochēma*/ὄχημα),<sup>45</sup> would be highly influential for speculation on body types of a different nature to those ordinarily perceived by human beings. Thus, the way was paved for new terms in Platonism, Neoplatonism, and hermetic and theurgical thought, made up of expressions that are conceptually close, but precisely defined and distinct in the various schools, that is to say, "radiant body" (*augoeides ochēma*), "astral body" (*astroeides ochēma*), and other expressions.<sup>46</sup>

In the Christian context, many of the Church Fathers, seeking to distance themselves from the pagan philosophers also in their choice of vocabulary, appropriated the doctrine of the "vehicle", translating it into

<sup>44</sup> Cf. Origen, *On First Principles*, I, 6, 3. English translation in: Origen (2017). *On First Principles*. Edited and translated by John Behr. 2 Volumes (Oxford: Oxford University Press), 115 (Vol. 1).

<sup>45</sup> Cf. Plato, *Timaeus*, 69 C7.

<sup>46</sup> For a comprehensive overview of the concept of *ochēma*, see: J.J. Poortman (1978). *Vehicles of Consciousness. The Concept of Hylic Pluralism (Ochēma)* 4 Volumes (Utrecht et al.: The Theosophical Society in the Netherlands).

the need also for angels (and for demons *a fortiori*) to have a special “subtle body”, or “glorious body”. Even with some exceptions, and with the significant example of St. Augustine’s hesitation, most of the Church Fathers believed that angels had a subtle (*sui generis*) body, from Origen to Justin, Tertullian, Gregory the Great, John Damascene, and many others.<sup>47</sup> Absolute incorporeity was reserved only to God. In general, the body was considered to be a distinctive sign of created nature. While in the early centuries of the history of Christianity the concept of “angelic hylo-morphism” was largely accepted, later most thinkers would accept the contrary doctrine of the pure spirituality of angels.<sup>48</sup> This happened on account of Pseudo-Dionysius’ conception of the pure spirituality of the angelic hierarchies, taken up again and vigorously pursued by Thomas Aquinas, the champion of the pure spirituality of angelic natures.<sup>49</sup> Aquinas’ vision then influenced the whole position of the Church, and popular belief, to the extent that nowadays the dominant idea is still that angels are totally incorporeal beings.

The theme of demonic-angelic corporeality merely reintroduces the classic philosophical issue of the mind-body relationship, but transposed to the more refined plane of the higher natures of the demons of antiquity or the angels of Christianity. It is precisely this theoretical/doctrinal refinement developed during the history of philosophical angelology that may also be of interest to contemporary debate on artificial minds and cyborgs.

### *The Cyborg*

Although the term “cyborg” was coined in the early 1960s,<sup>50</sup> the integration of invasive artificial body parts into human bodies is as old as humans themselves. Apart from the different and legitimate possible semantic distinctions,<sup>51</sup> the cyborg is easily exemplified by today’s application of techno-electronic devices to the human body: from ordinary pacemakers

<sup>47</sup> Cf. P. Glorieux (1959). *Autour de la spiritualité des anges. Dossier scripturaire et patristique* (Tournai: Desclée and Cie).

<sup>48</sup> Ralph Cudworth, Leibniz, and few others are rare exceptions.

<sup>49</sup> Cf. Aquinas, *Summa Theologiae*, I, q. 50, a. 1 (*Corpus*).

<sup>50</sup> Cf. J.J. Clynes, N.S. Kline (1960). Cyborgs and Space. *Astronautics*, September 26–27 and 74–76.

<sup>51</sup> See, for example, the voice “Cyborg” in: G. Hottot, J.-N. Missa, L. Perbal (Eds.) (2017). *L’Humain Et Ses Préfixes. Une encyclopédie du transhumanisme et du posthumanisme* (Paris: Vrin), 371–381.

to cochlear implants, to futuristic nanobots inserted to target cancerous cells selectively, we are already well along the way to cyborg hybridization. In her celebrated *Cyborg Manifesto*, Haraway clearly states that we are all cyborgs.<sup>52</sup>

What frightens or fascinates us is the question of limits, of how far boundaries can be pushed, to determine whether there is a point of no return beyond which human-machine hybridization means we can no longer speak of human nature. It is precisely playing with these limits that fuels the myth, as we can see once again in Haraway's words where she states that the cyborg is a myth that emerges precisely "where the boundary between human and animal is transgressed".<sup>53</sup>

However, it should not be thought that this is a myth exclusive to our hyper-technological civilization. On the contrary, I think that the ability to *build* another self is a dream that has always been inherent in human nature, and in this case, I mean "building", placing myself on a plane other than that of mere biological reproduction. We can go much further back than Frankenstein's mythical creature, returning, once again, to the heart of ancient mythology. The striking, little-mentioned example is that of Talos (or Talon), a giant, prodigious metal automaton forged by Hephaestus and given to Minos, the King of Crete.<sup>54</sup> Hephaestus was the god of fire, blacksmiths, engineering, and metallurgy, the creator of all the major tools used by the Olympian deities, from Zeus' lightning bolts to Hermes' helmet and winged sandals, to Helios' chariot, to name but a few better-known deities. He also fashioned the automata, as Homer testifies in the *Iliad*.<sup>55</sup> However, among all the creations, Talos is a unique example, in that it can be regarded as one of the first cases of an artificial human being. Talos was not made of flesh and bone, but rather of bronze; its body had a single vein that extended from its neck to its ankle, where a bronze nail was driven in at the end. It was endowed with prodigious strength, since to guard the island of Crete it would run around the island

<sup>52</sup> "By the late twentieth century, our time, a mythic time, we are all chimeras, theorized and fabricated hybrids of machine and organism—in short, cyborgs". Cf. D. J. Haraway (1991/2016). *A Cyborg Manifesto. Science, Technology, and Socialist-Feminism in the Late Twentieth Century*, in: D. J. Haraway (2016). *Manifestly Haraway. The Cyborg Manifesto. The Companion Species Manifesto. Companions in Conversation (With Cary Wolfe)* (Minneapolis-London: University of Minnesota Press), 7.

<sup>53</sup> Cf. *Ibidem*, 11.

<sup>54</sup> Cf. Ps.-Apollodorus, *Biblioth.*, I, 9, 26 (140–141).

<sup>55</sup> Cf. Homer, *Iliad*, XVIII, 360 ff.

three times a day. What is most interesting, however, apart from its mechanical gifts, is the fact that the myth depicts it as any human mortal. Medea manages to “kill” it by removing its nail, after deceiving it by promising to make it immortal. The fact that Talos is not immune to the persuasive force of Medea’s words reveals its “human” nature. Talos’s tale is paradigmatic for the entire subsequent, vast human history relating to the construction of *automata*, in which the tacit but evident existence of a red line is crossed by the automata that become something more or other than a mere, simple mechanism.

The dream is always the same: transforming a mechanism into a living being. Yet, conversely, there is the case of the “Digesting Duck”, built by Jacques de Vaucanson (1739), a mechanical duck that swallowed food and shortly after excreted it. In this case, the red line is not an issue, as the mechanical duck lends itself perfectly to the idea of nature and life as something that can be reduced to mere mechanical principles.

While Clynes and Kline in their use of the term cyborg did not intend to eliminate human nature at all when theorizing about new humans hybridized with machines, the cyborg of our day is instead increasingly conceived as a total replacement of biological-organic parts with non-biological parts, so that human nature appears to be destined to be overtaken by new, completely artificial entities.

The cyborg of the future is also portrayed in contemporary dystopian films as a kind of corporeal, wholly artificial “angel”, in which the divine creator that built it is a human being, and the forges of Hephaestus are the modern laboratories of physics, computer science, and techno-biology.<sup>56</sup> Thus, from ancient mythology to the new cyborg mythology, an evolution can be traced that can be summarized in the following terms: whereas in the past a god capable of giving life to a non-living entity was imagined, whether made out of earth or metal, nowadays in place of the deity we have human beings aiming to do the same thing, beginning with the living human body and gradually replacing its living parts with synthetic parts, building *a new Talos*, a totally synthetic human organism.

<sup>56</sup>In this context, in the film *Blade Runner*, there are a few dialogues that are relevant concerning the cyborgs that are actually called “angels”, concealing a sort of primeval mythology similar to the one found in the mythical tales narrating the fall of the angels.

### 3 THE SHIP OF THESEUS VERSUS HUMAN MEREOLGY

The expression “Theseus’ Ship Paradox” (from now on TSP), sometimes referred to also as Theseus’ Ship Problem, indicates a classical problem concerning artifacts and the metaphysics of identity. In brief, it asks whether an object whose components have been totally replaced with others (adequately fitting the original ones) is still the same object. A fragment from Plutarch’s *Vitae Parallelae* is traditionally referred to as the historical beginning of the paradox, even if, from a conceptual point of view, the philosophical question of sameness and diversity implicit in it can be glimpsed in other periods in the history of thought, such as in Heraclitus (see the famous fragments related to the river’s flux) or in Plato (especially the dialogue *Parmenides*). This is Plutarch’s famous account:

The ship on which Theseus sailed with the youths and returned in safety, the thirty-oared galley, was preserved by the Athenians down to the time of Demetrius Phalereus. They took away the old timbers from time to time, and put new and sound ones in their places, so that the vessel became a standing illustration for the philosophers in the mooted question of growth, some declaring that it remained the same, others that it was not the same vessel.<sup>57</sup>

I will not dwell on the history of this paradox, but it may be worth noting that it has been considered many times in the history of philosophy. Hobbes and Locke, for example, addressed it. Hobbes introduced a further consideration, which can be summarized as follows: suppose all the planks gradually removed from the original ship were restored and assembled again in the same original order, we would obtain two ships which should be numerically identical: the same thing occupying two different places.<sup>58</sup> Leaving aside the Hobbesian complication, here I will simply take into consideration the TSP as a heuristic tool, in order to build up a basic framework of fundamental questions relating to that unique “living object” called *human being*. In brief, I will consider a human being as a particular *animated example* of the Ship of Theseus. It is possible that such an effort will result in a simple taxonomy of questions rather than a new

<sup>57</sup> Cf. Plutarch, *Theseus*, XXIII. English quotation taken from LCL, vol. 46 (1982). *Plutarch’s Lives*. With an English translation by Bernadotte Perrin in 11 volumes. I. (Cambridge (MA)—London: Harvard University Press—William Heinemann LTD), 49.

<sup>58</sup> Cf. Hobbes, *De Corpore*, Chap. 11.7.

proposal. However, a taxonomy of questions may prove to be more than a collection of question marks.

*Different Possible Variations in the Application of the Question  
of Theseus' Ship to Human Beings*

The strategy of applying the TSP to the human individual can be challenged right from the beginning, since there are *pro* reasons to accept it as a harmless parallel from which to start a discourse and there are *contra* reasons to reject it as inappropriate.<sup>59</sup> It is not unreasonable to believe that whether applying or not the TSP to the human individual may be a matter of fundamental legal compromise. In this case it is decisive to determine who or what a human individual is. In this regard I would like to mention that ancient Roman law had already raised some interesting questions. In Justinian's *Digest* we can find the following remarks by the jurist Alfenus Varus (first century BC) about the legitimacy of a trial when some or all the judges who had initially taken part in it have changed:

ALFENUS, *Digest*, book 6: The case was put that several of the judges appointed for the same trial had been excused after the case had had a hearing, and others had been put in their place. The question was whether the replacement of individual judges had resulted in the same case or a different court. I replied that not merely if one or two, but even if all had been changed, the case and the court both still remained the same as they had been before. And this was not the only example of a thing being considered the same after its parts had been changed, but there were many others too.<sup>60</sup>

It is at this point that Alfenus refers to a case history of “things” to support through analogy the same argument he made for the trial case. It is evident that there is a remarkable dissimilarity between the examples called into question, namely, a legion, a people, a continually repaired ship (with clear allusion to the ancient myth of the Ship of Theseus), and lastly “we ourselves”, considered in our constant change:

<sup>59</sup> Among the recent discussions in metaphysical works, the TSP is principally related to non-living artefacts: P. v. Inwagen (1990). *Material Beings* (Ithaca: Cornell University Press), 128–129; S. J. Evnine (2016). *Making Objects & Events. A Hylomorphic Theory of Artifacts, Actions, & Organisms* (Oxford: Oxford University Press), 106–109.

<sup>60</sup> Cf. *The Digest of Justinian* (1998, Rev. Ed.). Translation edited by Alan Watson, vol. 1 (Philadelphia: University of Pennsylvania Press) (Book 5, 1, 76), 173–174.

For a legion too was held to be the same although many of its members had been killed and others had been put in their place. A people too was thought to be the same at the present time as it had been a hundred years ago, although no one was now alive from that period. Likewise, if a ship had been repaired so often that no plank remained the same as the old had been, it was nevertheless considered to be the same ship. For if anyone thought that a thing became a different one when its parts were changed, it would follow from this reasoning that we ourselves would not be the same as we were a year ago, because, as the philosophers said, the extremely tiny particles of which we were made up daily left our bodies and others came from outside to take their place. Therefore, a thing whose appearance remained the same was considered also to be the same thing.<sup>61</sup>

Thus, Alfenus' conclusive legalistic solution to affirm the identity of an object/subject ultimately boils down to the fact that the same external appearance persists individuals.<sup>62</sup> Is this a satisfactory solution? Basing the identity of an object/subject on outward appearance can also reveal paradoxical situations. For example, the same person, whether infant, young, or old, displays radically different external characteristics. The above passage was also noted by the young Leibniz, who made no critical remarks on it.<sup>63</sup> However, in his *Nouveaux Essais*, Leibniz, remaining in a legal context, argued that in order to be able to say that individuals (humans) remain the same, it is necessary to recognize not only the same "external configuration" in them, but also the existence of an internal principle that allows us to qualify a given individual specifically as a living being. Such a first principle, which is indivisible and cannot be derived from anything else—and of which we have already given the main references above<sup>64</sup>—is the monad. The passage below also shows us how Leibniz restricts the question of Theseus' ship to bodies only:

<sup>61</sup> Ibidem, 174.

<sup>62</sup> This is the Latin version of the last phrase cited above: "[...] quapropter cuius rei species eadem consisteret, rem quoque eandem esse existimari". Cf. Alfenus, *Digesta*, lib. 5, 1, 76, in: P. Krüger, T. Mommsen (Eds.) (1968). *Corpus Iuris Civilis*, vol. I (Dublin—Zürich: Weidmann), 107.

<sup>63</sup> It is highly likely that Leibniz on this occasion was attracted by the remarkable idea of the fluidity of all bodies: G. W. Leibniz (1671). *De resurrectione corporum* (cf. A.II.I.184).

<sup>64</sup> See Chap. 1, §§ 7–8.

THEO. Organization or configuration alone, without an enduring principle of life which I call “monad”, would not suffice to make something remain numerically the same, i.e., the same individual. For the configuration can continue specifically without continuing individually. When an iron horseshoe changes to copper in a certain mineral water from Hungary, the same kind of shape remains but not the same individual: the iron dissolves, and the copper, with which the water is impregnated, is precipitated and imperceptibly replaces it. But the shape is an accident, which does not pass from one subject to another (*de subjecto in subjectum*). So, we must acknowledge that organic bodies as well as others remain “the same” only in appearance, and not strictly speaking. It is rather like a river whose water is continually changing, or like Theseus’s ship which the Athenians were constantly repairing. But as for substances which possess in themselves a genuine, real, substantial unity, and which are capable of actions which can properly be called “vital”; and as for substantial beings, *quae uno spiritu continentur* as one of the ancient jurists says, meaning that a certain indivisible spirit animates them: one can rightly say that they remain perfectly “the same individual” in virtue of this soul or spirit which makes the *I* in substances which think.<sup>65</sup>

As the critical edition of Leibniz’s text reports, the Latin reference again relates to Justinian’s *Digest* and the jurist in question is Sextus Pomponius (second century AD). Pomponius, in discussing the legal issue of *usucapion*, distinguishes between different possible types of “things”.

POMPONIUS, *Sabinus*, book 30: The question has been posed whether the mixing-up of things breaks the erstwhile usucapion of each element. Now there are three kinds of things: One is that suffused by a single spirit [*quae uno spiritu continentur*], which the Greeks call unitary [*ἡνωμένον*], a slave, for instance, a beam of wood, a stone, and the like; another is that compounded of cohering individual elements, which is described as constructed [*συνημμένον*], a house, say, a ship, or a cupboard; the third is that which is composed of individual entities. Subsumed under one designation, such as a

<sup>65</sup> Cf. G.W. Leibniz, *New Essays on Human Understanding*, Book II, Ch. 27, § 4, in: G.W. Leibniz (1996). *New Essays on Human Understanding* [1704]. Translated and edited by Peter Remnant and Jonathan Bennett (Cambridge—New York: Cambridge University Press), 231–232. See the original text in: A.VI.6.231–232.

nation, a legion, or a flock. That the first kind should be open to usucapion presents no problem, but the other two do. [...].<sup>66</sup>

The thriving contemporary technological scene displays a complex case study of “human hybridizations”, which urgently calls for criteria that determine whether something has the status of a living object/subject (and consequently also whether it has rights or duties). As I will illustrate later below, although ancient, the “Roman solution” of distinguishing between “ἡνωμένον (*continuum*)” and “συνημμένον (*coniunctum*)” in my opinion remains one of the most interesting intuitions to shape contemporary and future thought on the problems of human hybridization.

I will now introduce several possible combinations of hybridization, listing the main reasons in favor (*Pro*) alongside those against (*Contra*).

### (α) *The Case of Pure Natural Hybridization*

The first viewpoint I will consider is the case in which a human organism can undergo perpetual totally natural “repair”, through “replacement parts” coming exclusively from other human individuals.

Pro (α)

For advocates of this approach, being able to make a full analogy or even carry out a full transposition between the human being and Theseus’ ship seems obvious for several reasons.

(i) Just as Theseus’ ship is continually being repaired, so too is our body continually undergoing repairs. In our organism a large number of “parts”, dead cells, for example, are continually replaced by others, to the extent

<sup>66</sup> Cf. *The Digest of Justinian* (1998, Rev. Ed.). Translation edited by Alan Watson, vol. 4 (Philadelphia: University of Pennsylvania Press), 36 (Book 41, 3, 30).

The following is the original version in Latin: “*IDEM* [POMPONIUS] *libro trigensimo ad Sabinum* Rerum mixtura facta an usucapionem cuiusque praecedentem interrumpit, quaeritur. Tria autem genera sunt corporum, unum, quod continetur uno spiritu et Graece ἡνωμένον [\*] vocatur, ut homo tignum lapis et similia: alterum, quod ex contingentibus, hoc est pluribus inter se cohaerentibus constat, quod συνημμένον [\*\*] vocatur, ut aedificium navis armarium: tertium, quod ex distantibus constat, ut corpora plura non soluta, sed uni nomini subiecta, veluti populus legio grex. Primum genus usucapione quaestionem non habet, secundum et tertium habet. [...]”. Cf. Sextus Pomponius, *Digesta*, lib. 41, 3, 30, in: P. Krüger, T. Mommsen (Eds.) (1968). *Corpus Iuris Civilis*, vol. I (Dublin—Zürich: Weidmann), 705–706. After the term ἡνωμένον, with the [\*] sign, note number (24) cites “id est continuum” (ibidem, 705), whereas after the term συνημμένον, with the [\*\*] sign, note number (1) of the following page cites “id est: coniunctum” (ibidem, 706).

that it is easy to think that an adult individual no longer retains any of the cells they had as a child. Indeed, it seems that a total process of physical renewal takes place periodically in the human individual after a certain number of years.

(ii) Organ donation is a wonderful case not only of human generosity, but also of the human ability to be able to perform such surgical marvels today that might have been considered “miraculous” by the same humans a few decades ago. I will add here that in Christian hagiographic literature, we even find the case of a miracle performed by the two physicians Cosmas and Damian who were brothers (second half of the third century AD), who miraculously transplanted a leg of a recently deceased Ethiopian man into the body of a white man, after having amputated the latter’s limb completely ravaged by sores. Jacopo da Varagine’s *Golden Legend*, which contains the account, does not specify which of the two legs was the diseased one, resulting in differences in the numerous iconographic representations of the event. However, what is most important in that miracle is the fact that the ecclesiastical authorities accept as valid a certain “way of acting” on the human body, which in a sense marked the advent of the most daring and radical surgery.

(iii) If human organs were to be in short supply, genetically modified animal organs could meet the need instead, through xenogeneic transplantation. Case studies of xenogeneic transplantation have been known since the 1960s and although experimentation to date has produced modest results, this does not detract from the fact that treatment will become increasingly effective, achieving remarkable results.<sup>67</sup>

(iv) As an alternative to xenogeneic transplantation, another potential source for organ transplantation is human cloning to produce “spare parts” to replace any of our diseased, damaged, or aging “parts”. No “part” is excluded in this process of possible total replacement, not even

<sup>67</sup>The most recent sensational case is that of the American patient David Bennett in January 2022 who, faced with the prospect of imminent certain death, was the first to undergo a genetically modified pig heart transplant. From a technical standpoint, the operation, performed at the University of Maryland Hospital, allowed the patient to survive for two more months. To date, I am not aware of much news coverage in the most important international medical journals. The public was informed through more traditional media. See, for example: <https://www.bbc.com/news/health-60681493> (accessed: December 2023).

the brain or the entire head,<sup>68</sup> paving the way for “immortality” on this earth.

Contra ( $\alpha$ )

Against the legitimacy and feasibility of this prospect ( $\alpha$ ), first of all it can be objected that the expression “spare parts” is conceptually unsuitable, derived from a largely mechanistic-materialistic outlook, with reference to the various “parts” into which the human body is broken down in anatomy textbooks. It is questionable to call “spare parts” the parts of a human body, since the expression lends itself rather to describing an inorganic artifact and not a “living unit”, where separating the various constituting organic components from the whole living unit that they contribute to build up is not so obvious.

Moreover, *what* makes a human individual a living being is itself not a “part”, or rather, there is no room for this “part” among the various “parts” dealt with in contemporary anatomy textbooks. *What* makes a human individual a living being is a kind of unfathomable equilibrium, which we are certainly able to destroy when someone’s death is caused, but which we are unable to restore or reconstruct later. Indeed, the body’s restoration would clearly appear as a “miraculous” act, beyond human ability. All acts of resurrection from the dead turn out to be examples where the limit of human action is proved and where these resurrections are even attested, as, for example, in the Gospels, these are commonly considered acts of divine/superhuman intervention.

As for the various specific cases, objection to (i) is that it is questionable that all parts of the human body are replaced by others during a lifetime. For example, it appears that some neurons after a certain age are not replaced by other totally new cells and, in general, at a certain point in an individual’s life cell renewal seems to reduce or even disappear (at least in some areas of the body).

As regards case (ii), without considering the radical objections made on preconceived religious grounds—which usually leave no room for dialogue—the objections start with the simple observation that potential transplants are limited. Here critics emphasize how transplantation can impact a person’s life, so that even in the case where, at best, the person who has undergone a transplant would resume a “normal” life, it is unlikely

<sup>68</sup>Also in this case, head transplants on primates have been conducted for some time, although they are considered “unofficial” extreme surgery of which little is known.

that they could subsequently undergo a second, third, or more transplants and then continue to live “normally”. They therefore conclude that “the human ship of Theseus” is not feasible through transplantation.

Concerning case (iii), in addition to general objections about the vast case history of rejection, objections are also raised about the distortion of the human individual if organs from other animals (even if genetically modified) are implanted. A pig heart would turn out to be an unauthorized part of the same “human vessel”. The same objection could also be made in the more complex case of human organs grown inside other animals, with the aim of later being transplanted once they have reached a proper stage of growth. Is a human heart “grown” in a pig still entirely a human heart? Those who ask this question from a critical standpoint are unlikely to give an affirmative answer.

Finally, the prospect of human cloning (iv) raises enormous issues primarily concerning the ethics of human cloning as well as the purpose or servitude of clones. However, even in the case where, theoretically, employing human clones as pure organ reservoirs for the “original individuals” was allowed, the same objections already raised above in case (ii) would arise. However, in this case the issue could introduce an important variation, in that there would be a hypothetical case of whole-body replacement, leaving the original head intact with the prospect of an actual infinite perpetuation of the “human ship of Theseus”. However, even the original head would in turn face progressive decay and thus the need would arise for further risky intervention. Again, from the standpoint of the latter radical prospect, another variation could be the use of the whole clone, in which, once developed, would only need the brain of the original individual to be transplanted into it. Regarding the latter alternative, opponents of the ( $\alpha$ ) perspective, among other radical criticisms, might raise the question of the legitimacy of reducing the whole human being or the whole “person” to just the brain. The inevitable prospect of the “original brain” deteriorating must then be taken into consideration.

### *( $\beta$ ) The Case of Natural-Artificial Hybridization*

Pro ( $\beta$ )

What has been said above for case ( $\alpha$ ) proves to be simply supplemented or greatly enhanced in the prospect of using artificial parts for the human body that are not organic in nature, and in such a manner that they

constitute a whole with the (organic) body. Due to the artificial part's perfect performance and integration with the rest of the body, it is no longer important to distinguish it as *other than the body*. The use of aids, such as contact lenses to improve vision, or dental implants are common examples of the progressive tendency toward ever greater hybridization between man and inorganic nature. Still in the general field of implants, the discovery of titanium as an effective metal that is not rejected by the human body as a foreign element is nothing short of exceptional and has revolutionized medicine in recent decades. Likewise, it can be imagined that hybridization will also occur with countless other types of materials, whether natural or synthetic, which are simply waiting to be discovered.

### Contra ( $\beta$ )

Criticism of natural-artificial hybridization in this case is not necessarily completely antagonistic, but nevertheless imposes severe restrictions. It can be agreed that today's dental prostheses or prostheses that replace entire limbs of the body are impressive and are a boon for those who have lost a limb, enabling them not only to walk again, but even to run or compete as a professional athlete. The general problem that arises here is whether the use of a certain synthetic or bionic part can have, at multiple levels and in the most diverse contexts, important repercussions in social interaction. For example, the case was made of the performance of athletes equipped with prostheses compared to athletes without prostheses.<sup>69</sup> Another wide range of examples is provided by the case of the brain. In fact, what would happen, in terms of social relations, if the organic brain were for the most part or even completely replaced with artificial material? Even if that person, thanks to that particular surgery, could resume a "normal" life, important questions would arise on whether or not that person should be given responsible roles or tasks in civilian life, such as the professions of doctor, judge, or pilot, at least in the case of complete replacement with a synthetic brain.

<sup>69</sup> See the complex sport-judicial case of the athlete Oscar Pistorius.

(γ) *The Extreme Case of Total Artificial Hybridization*

Pro (γ)

The case of total artificial hybridization, whether organic parts are substituted gradually or whether hybridization is completely artificial using ready-made synthetic parts, remains in the realm of pure speculation, although there are numerous passionate supporters among the transhumanists. Indeed, they have considered for some time that total hybridization is inevitable and its implementation is only a matter of time. Here we must return to the issue of the underlying theoretical assumptions, based on the conviction that it is possible to divide up into separable parts the whole issue tied to a human individual's conscious life: consciousness, memory, intelligence, perceptions, feelings, affections, hunger, thirst, movement, voluntary actions, etc. An individual's life is viewed as the result of a composition of physical parts, a skillful interconnection of mechanical parts, or else referring to the technical-legal term seen above, it is a *συνημμένον* (*coniunctum*), namely the result of an interrelation between physical-mechanical and/or electro-mechanical components. Free rein can be given to the imagination as regards naming these new entities: posthuman individual ("posthuman" as considered by the transhumanists); mechanical angel; full body cyborg, etc. From this perspective, there is no longer any separation between biological and non-biological, mental or corporeal, amounting to a strictly anti-dualist approach.

Contra (γ)

The basic critical view of those who do not consider perspective (γ) achievable is to regard life as a unifying principle that cannot be divided. In this view, taking up the above-mentioned technical-legal terminology, we speak of life, consciousness, and organicity not as parts or as things among things, but as *ἡνωμένον* (*continuum*), unitary, and undividable. In practical terms and very briefly, the fact that the human being fully coincides exclusively with the biological body, divisible into any number of parts is challenged. Critics believe that there are always enigmatic areas of the human being, such as consciousness and in general the entire phenomenology of the living being, which proves to be simply elusive. Thus, if such mysteries are present in the world of organic beings, the very idea of building an artificial consciousness or creating a synthetic life form appears completely meaningless.

#### 4 TRANSHUMAN AND POSTHUMANIST PERSPECTIVES ON THE (HUMAN) SHIP OF THESEUS

We have seen some theories outlined above, and now we shall turn to some practical examples that circulate in contemporary transhumanist and posthumanist debate. The intention is only to provide a few important cases to pursue our metaphysical-mythical-mystical discourse.

##### *Transhuman Perspectives on Enhancement and Nanobots*

In the following points, I will consider the most extreme forms of transhumanism, “in the style” of Nick Bostrom and Raymond Kurzweil. I shall leave aside the more moderate forms of compromise, such as those expressed by Stefan Lorenz Sorgner, drawing on Gianni Vattimo’s philosophy, who proposed a “weak variant of transhumanism”,<sup>70</sup> without, however, succeeding in shifting from an essentially monistic and materialist standpoint.

Natasha Vita-More’s project, called *Primo Posthuman*, can be considered among the most illustrative examples of transhumanist optimism in human enhancement through the potential complete replacement of all human body parts, in terms of “radical life extension”. The future “posthuman” prototype (we should note again that here the term “posthuman” only refers to the final result of the process of transhumanist enhancement) is divided up into five macro areas (“Smart Skin”, “Internal Layer”, “External Layer”, “Metabrain”, and “Connectome Cloud”), each of which is further divided up into constituent parts, some of which, in turn, refer to “connection” to external signals. For example, the “Smart Skin”—which I listed first, but there is no order in the project—contains the following information: “Multi-functional safety and survival protocols; GPS on/off modulator; Biocompatible AI-nanoskin mesh; Homeostasis alert system; Sensation degree and volume control”. However, in this description of the potential replacement and interconnection of parts, there is no indication of the “self” as a separate description. The only information given in the “Connectome cloud” is “full-spectrum neuron connectivity”, and in the “Metabrain” zone, “nanotech data storage memory system”, but nothing that explicitly refers to the personality of an “I”. What could

<sup>70</sup>Cf. S. L. Sorgner (2021). *On Transhumanism*. Translated by Spencer Hawkins (University Park: The Pennsylvania State University), 101.

be a reference to a residue of human nature is surprisingly to be found in the information regarding “blood monitoring”, in the “Internal Layer”.<sup>71</sup> Thus, the problem of identity of the self is dispelled in the general inter-connection between the internal and external parts of the *Primo Posthuman*, as well as through the potential connection with external communication systems, although the difference between internal and external seems to be a mere question of labeling.

Likewise, perhaps even more insistently, Kurzweil’s *The Singularity Is Near*<sup>72</sup> abounds with technical language that clearly provides a glimpse of a conception of the human being interpreted as a machine, a biological machine capable of merging progressively with future non-biological nanotechnology, until the non-biological part or a complete substitution of the former for the latter will inevitably prevail. This leads Kurzweil to set out views such as the following: “[...] future machines will be human, even if they are not biological”.<sup>73</sup> A corollary of this view that is not made explicit is, first of all, to consider as non-contradictory the expression *human machine* or, in other words, to regard as affirmative the question of whether (the current) human being is a machine, since our human civilization “is already a human-machine civilization”.<sup>74</sup>

As said above, Kurzweil’s description uses a language that is heavily techno-mechanical, with expressions such as “Reverse Engineering the Brain”, “Uploading the Human Brain” (p. ix), “the wiring of our inter-neuronal connections [...]” (p. 77), and others. Kurzweil clearly adopts a basic reductionism that assigns thinking to the brain, with neurons as basic units potentially replaceable with “nanobots”. Although Kurzweil undoubtedly attaches importance to the question of consciousness,<sup>75</sup> he believes that this question cannot and will never be given a precise answer as far as its actual “presence” is concerned. Interestingly, among the many quotations, Kurzweil cites a freely translated summary from § 17 of Leibniz’s *Monadology*<sup>76</sup> and an even more abridged version of the same in the very section devoted to “The Vexing Question of Consciousness”.<sup>77</sup>

<sup>71</sup> Cf. <https://natashavita-more.com/innovations/> (accessed: December 2023).

<sup>72</sup> Cf. R. Kurzweil (2005). *The Singularity Is Near. When Humans Transcend Biology* (New York: Viking).

<sup>73</sup> Cf. Kurzweil (2005), 30.

<sup>74</sup> Ibidem.

<sup>75</sup> “Consciousness is the most important ontological question”. Cf. Kurzweil (2005), 380.

<sup>76</sup> Cf. Kurzweil (2005), 167. See above, Chap. 1, § 8, in particular point (d).

<sup>77</sup> Cf. Kurzweil (2005), 376.

The result is that the quote from Leibniz ends up being used, paradoxically, as a support for his own position on the subject: “If there is one crucial insight that we can make regarding why the issue of consciousness is so contentious, it is the following: *There exists no objective test that can conclusively determine its presence*”.<sup>78</sup> The problematic nature of the issue and the fact that Kurzweil essentially admits that no correct answer can be given does not, however, lead the author to question his basic view concerning the exponential progressive replacement of biological intelligence with artificial intelligence. According to Kurzweil, the problems concerning consciousness in human beings will be identical to those in the completely artificial beings of the future, who will seek in every possible way to convince us that they also possess one.<sup>79</sup>

In Kurzweil, concerning the problem of the consciousness of an “I”, first we note the absence of a real distinction between a biological and non-biological “I”. Secondly, the self is essentially traced back to the emergence of the activity of a group of neurons/nanobots, according to a view highly similar to what nowadays falls within the semantic field of the expression “swarm intelligence”. Concerning this, an important quotation by Giulio Giorello is cited by Kurzweil (without a source), a quote that is not further developed, but which seems to me best sums up his own basic idea: “Yes, we have a soul. But it’s made of lots of tiny robots”.<sup>80</sup>

Similarly, the question of self-identity also changes in Kurzweil. The self becomes for Kurzweil simply a “pattern”, potentially reproducible with any preferred degree of precision.<sup>81</sup> Kurzweil believes that the gradual physical-cerebral repair/replacement of the “I”—as a fact that we constantly experience in normal biological renewal processes, in nanorobots, and in the more sophisticated techniques of cryonics in the future—will lead to the possibility of the “original I” being supplanted by its “copy”. In relation to the multiple problems about identity that are posed here, Kurzweil proposes as his main solution to the fundamental question “who

<sup>78</sup> Cf. Kurzweil (2005), 378 (Italics in the original quotation).

<sup>79</sup> “My point is that we cannot safely dismiss the question of consciousness as merely a polite philosophical concern. It is at the core of society’s legal and moral foundation. The debate will change when a machine—nonbiological intelligence—can persuasively argue on its own that it/he/she has feelings that need to be respected. Once it can do so with a sense of humor—which is particularly important for convincing others of one’s humanness—it is likely that the debate will be won”. Cf. Kurzweil (2005), 379.

<sup>80</sup> Cf. Kurzweil (2005), 369.

<sup>81</sup> Cf. Kurzweil (2005), 383–384.

am I” his so-called patternism: “I am principally a pattern that persists in time”.<sup>82</sup>

### *The Case of Mind Uploading*

Concerning the controversial issue of mind uploading, that is to say the prospect of implementing a “process of migration from brain to computer”, I will focus primarily on David Chalmers’ article entitled “Uploading: A Philosophical Analysis”, in which the subject is addressed in two parts, taking into consideration (i) the problem of consciousness and (ii) that of identity.<sup>83</sup>

(i) As regards consciousness—a topic to which Chalmers has famously devoted some of the most influential works in recent decades—at least three major preliminary considerations can be highlighted. First, Chalmers acknowledges that although neuroscience is gradually discovering various “neural correlates of consciousness”, research programs are limited to “taking for granted”<sup>84</sup> the existence of consciousness. Second, the fact of having a complete physical description of a living organism, such as a mouse, “does not appear to tell us what it is like to be a mouse, and indeed whether there is anything it is like to be a mouse”.<sup>85</sup> The third consideration I wish to highlight refers to Chalmers’ assertion concerning the fact that a “consciousness meter” does not exist. Hence, faced with both a biological and an artificial system “there will at least be a substantial and unobvious question about whether it is conscious, and about what sort of consciousness it has”.<sup>86</sup>

Despite these cautionary remarks that are entirely comprehensible, Chalmers then adopts a confident optimistic position that it will one day become possible to build a *synthetic functional isomorph system* that is likely to be endowed also with consciousness. According to Chalmers, the most reasonably safe method should be the technique of “gradual uploading”, namely, the gradual and progressive replacement of a certain percentage of

<sup>82</sup> Cf. Kurzweil (2005), 386.

<sup>83</sup> Cf. D. J. Chalmers (2014). Uploading: A Philosophical Analysis. In R. Blackford, D. Broderick (Eds.), *Intelligence Unbound. The Future of Uploaded and Machine Minds* (Hoboken (NJ): Wiley Blackwell), 102–118. The words cited between speech marks can be found on p. 102.

<sup>84</sup> Cf. Chalmers (2014), 104.

<sup>85</sup> Ibidem.

<sup>86</sup> Ibidem.

biological brain with a corresponding amount of *functional isomorphic silicon circuits*, until the brain has been entirely replaced, which should give rise to a new individual. Chalmers acknowledges that there may be a considerable number of issues regarding the timing of replacement, as well as issues of ethical and even legal origin, but this does not affect the fact that uploading can be done, a position also reiterated in his recent book *Reality +*, where “gradual uploading” is openly defended in these terms:

The best case for survival is, once again, gradual uploading. Say one percent of my brain is replaced every day. It seems plausible that at the end of the first day, I’m the same person. At the end of the second day, I’m the same person I was at the end of the first day, so I’m the same person I was at the beginning of the process. And so on. What happens here seems no different in principle from what happens to an ordinary biological brain, many of whose neurons may be replaced over a long period of time. Making a new brain all at once may create a new person, but gradual replacement leaves the old person intact.<sup>87</sup>

While in the quotation above it is only possible to find a potential reference to Theseus’ ship between the lines, in Chalmers’ article it is explicitly mentioned, intending to point out the limits of applicability to the case of “persons”. The following is the key point in full:

This is a common view of the ship of Theseus, in which all the planks of a ship are gradually replaced over years. It is natural to hold that the result is the same ship with new planks. It is plausible that the same holds even if the gradual replacement is done within days or minutes. By contrast, building a duplicate from scratch without any intermediate cases arguably results in a new ship. Still, it is natural to hold that the question about the ship is in some sense a verbal question or a matter for stipulation, while the question about personal survival runs deeper than that. So it is not clear how well one can generalize from the ship case to the case of persons.<sup>88</sup>

(ii) As regards the second part on identity, I would now like to mention at least two points that are still problematic in the issue of mind uploading, whether regarding the issue itself, or Chalmers’ defense. The first point arises from the term “person”—a term that is adopted in both

<sup>87</sup> Chalmers, D. J. (2022). *Reality +. Virtual Worlds and the Problems of Philosophy* (Dublin et al.: Allen Lane), 293.

<sup>88</sup> Cf. Chalmers (2014), 113.

quotations—and it merely shows that the term is in fact semantically intended within an extreme reductionism: the person is reduced to their own brain, but it is certainly debatable that a person is only their brain. To speak of “person” also means to speak of body, relationship with other bodies, gravity, intersubjective experiences, and sensory experiences that condition an individual’s thinking and language from birth. Apart from legal questions, which I will not explore here, several other basic questions arise:

Can a sentient mind be given without a suitable body?

Is it possible to “surrogate” the relationship that is given between a sentient mind and the rest of the body (with the brain, heart, blood, hands, microbiome, etc.)?

How can we say that it is a set of relations that can be “broken down”?

Does knowing the “zones” of the brain mean knowing people?

Can consciousness be considered a “part” among “parts” of a human being?

My second basic consideration points to the fact that the evident reductionism that drives mind uploading research draws on a clearly materialist origin, traceable essentially to a Holbachian view that, as we saw above, advocates the *corporeality of spirit*, traced back to the physical activity of the brain.<sup>89</sup>

### *The Posthumanist Exaltation of Bacteria, Viruses, Mushrooms, and Non-living Beings*

It is not always easy to draw clear dividing lines between posthumanism and transhumanism when it comes to considering the prospects of so-called *human enhancement*. Some help in being able to understand or attempt to distinguish between the two approaches can be found in considering *what* the two points of view regard as important in achieving the aforementioned “enhancement”.

In the case of posthumanism, an important role is played by both (i) living proto-organisms and (ii) non-organic elements, whether natural or artificial. The first case (i) includes in particular the countless families of bacteria, viruses, and fungi, in other words instances of living proto-forms

<sup>89</sup>In reference to consciousness, it must be said that Chalmers does not define himself as a materialist (cf. Chalmers (2014), 117, note 2).

that continue to this day to surprise us with their presence in the most extreme places, openly showing us how life, through these living forms, proves to be almost everywhere, even in unimaginable places. The second case (ii), on the other hand, includes a wide range of natural or artificial elements, which, because of their cooperation with the body to which they can be associated or belong, such as prostheses of various kinds or simple tools, tend to be increasingly considered as constituent elements forming a *whole* with the body of which they are prostheses or tools.

Let us briefly see how both cases contribute to the same result, namely, the disappearance or submergence of conscious individuality, as a mere *element among elements*, without conscious individuality being able to claim or demand any exceptionality whatsoever.

On the one hand, the exaltation of simple life forms, such as bacteria, finds support in the dawn of universal history, since they constitute the earliest evidence of living beings according to the recent studies. Posthumanists who extol the importance of primordial life forms also recall the fundamental role for life of the microscopic intestinal flora and fauna of human beings. The human body is literally colonized, internally and externally by other “living things” that we could not do without. On the other hand, the exaltation of natural inorganic forms is supported by the achievements of increasingly sophisticated forms of “micro-prostheses” which has led Margrit Shildrick to coin the thought-provoking expression, “visceral prostheses” (to describe the combination of “objects” in micro-biology and biotechnologies).<sup>90</sup> The mutual combination of organic micro-forms and artificial micro-prostheses leads Shildrick to consider the issue of individual identity “redundant”, taking as a heuristic example the TSP:

The question is whether transformations of the body through technological means can support an enduring self, or does that concept lose validity. The problematic calls to mind the classical Ship of Theseus paradox that asks whether an object—or person—in which the original components have been replaced over time remains the same. If a disabled person lives on as a bioengineered hybrid, or an organ recipient survives by the implantation of the biomaterial of another, to what extent does it remain the same human life? *In a posthumanist context, that question is redundant.* As I have discussed in previous chapters, the visceral prostheses figured both by micro-biology and by biotechnologies open up a move beyond the intimation of

<sup>90</sup>M. Shildrick (2022). *Visceral Prostheses. Somatechnics and Posthuman Embodiment* (London et al.: Bloomsbury).

the supposed degeneration and death associated with disability, disease and dementia to a more constructive mode that concerns itself with an enduring vitalism that might be associated not with the purely human but with the creativity of assemblage.<sup>91</sup>

Qualifying as “redundant” the issue of the individual identity is precisely a characteristic feature of the most ordinary posthumanist standpoint, and in my view this reveals one of its major weaknesses at the same time. Thus, losing the self or conscious/intelligent identity in this kind of posthumanism becomes of minor importance or at least not fundamental. As we will explore more thoroughly in the last chapter, the idea of considering “redundant” or superfluous, the question of identity, and the permanence of the self in the flow of natural and artificial hybridizations—the “visceral prostheses” perspective<sup>92</sup>—can only make sense in a plainly mystical, albeit totally secularized, dimension (if indeed such a form of mysticism can ever be given). Where, however, such a posthumanist perspective also aims to act as an “ordinary” ethical guideline, an axiological guide for issues of gender, disability, or the most diverse physical and mental pathologies, the disappearance or undermining of the conscious self ends up inexorably clashing with the issue of individual responsibility, which *ipso facto* comes to lose all meaning, without the affirmation of an identity/subject for oneself, which is capable of choice. Even the “creative” dimension claimed by Shildrick concerning the so-called assemblage eventually becomes less important without an actual *creative subject*, capable of making creative choices, capable of *giving meaning to poetic action*, and consequently also responsible for their own actions.

### *Posthumanist “Normalities”*

Still on the subject of posthumanism, it is common to encounter discourses that present the question of chimerism as stripped of the “traditional” characters of abnormality or monstrosity. Abnormality and monstrosity are in fact viewed as such only from a hierarchical and human-centric perspective, and consequently the new identity of the

<sup>91</sup> Cf. Shildrick (2022), 176 (Italics mine).

<sup>92</sup> “Instead of thinking in terms of original self cells and invasive other cells—a formula that preserves the binary—I instead cast microchimeric material not as add-ins but as visceral prostheses that radically disturb the supposed constitution of any such originary self”. Cf. Shildrick (2022), 20.

posthumanist subject, which can undergo the most extreme organic and inorganic hybridizations, also needs a new interpretation of normality. The new/future human being or human-cyborg provides the basis for a new ontology, where what appeared or was said to be monstrous is actually just a new “normality”. The new proposed posthumanist identity shatters the physical and mental human individual, reassembling it associated with the most varied organic and inorganic assimilations, without aiming to make a strong identity structure prevail within this new recomposition.<sup>93</sup>

While *transhumanist identity* is the result of a mechanical calculation—whose strong points are blind faith in the ever-increasing possibility of perfecting the technique/technology that uses the “human object” in the same way as any assembled or disassembled object—*posthumanist identity* drowns the subject in a liquid reality, composed of an infinite plurality of relationships, compositions, fusions, and hybridizations among the most diverse possible material, organic and inorganic elements.

The issue outlined here of the posthumanist exaltation and harnessing of chimerism deserves a separate in-depth analysis, however, for the various implications also useful for our final study of the mystical-religious perspective. Therefore, let us enter the next chapter through the door of the chimera.

<sup>93</sup> “[...] a cyborg world might be about lived social and bodily realities in which people are not afraid of their joint kinship with animals and machines, not afraid of permanently partial identities and contradictory standpoints”. Cf. Haraway (1991/2016). *A Cyborg Manifesto*, 15.