David I. Dubrovsky and Merab Mamardashvili
Adam's Second Fall and the Advent of the Cyber-Leviathan

Inti Yanes-Fernandez

ABSTRACT   In his speech "The European Responsibility," the Georgian philosopher Merab Mamardashvili summarizes his utopia of a fulfilled humanity by presenting it as an integration of two main traditions: the Graeco-Roman and Judeo-Christian ones. In contrast, David Dubrovsky launches a new perspective for present and future human evolution: the cyber-superman, i.e. the perfect merging of human mind and digital brain—or the bio-digital interface. "Intelligence" here is not just an artificial by-product of a highly organized technological structure, but the reproduction of mental operations through the techno-replication of the bio-brain as material substrate: the Dubrovskyan avatar. In the present article, I focus on Dubrovsky's and Mamardashvili's anthropological paradigms, and their relationship to the phenomena of cyberbeing and cyberculture. I examine the phenomenon of cyberbeing as a "built-in" feature of a bio-electronic, transhuman ontology that impacts and transforms personhood into "cyborghood" in the context of an interactive digital framework of fictional transcendences, body-deconstruction and bio-technological interplays. My aim is to develop a critical approach to Dubrovsky's cybernetic anthropology and avatar-theory, along with its meaning and implications for our world-epoch, in contrast to Mamardashvili's ontology, which proves essentially incompatible with the moment of technological singularity—i.e. with the creation of a transhuman bio-digital avatar as envisioned and prophesized by Dubrovsky.

KEYWORDS   avatar; cyberbeing; Dubrovsky, David; evolutionary epistemology; Mamardashvili, Merab; mixed reality; transhumanism

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In his speech "The European Responsibility" (Paris, 1988), the Georgian philosopher Merab Mamardashvili summarizes his utopia of a fulfilled humanity by presenting it as an integration of two main traditions: the Graeco-Roman and Judeo-Christian ones.[1] Of these, the former opens up an acknowledgment of the development of language as an integrating vehicle—one that carries with it a truth pertaining to the human, in some sense located "outside" in the open space of the *agora*. Meanwhile, the latter gives us an appreciation of openness to the interior world: the possibility of ἀκοῦσαι[2] (i.e. listening to) the voice of the heart in which the transcendental destination of a human being can be experienced and attested to.

By contrast, David Dubrovsky, a "prophet" of the era of cyborg dominion and the transhuman, launches a new perspective for present and future human evolution: the cyber-superman, i.e. the perfect merging of human mind and digital brain—or the bio-digital interface. Peculiarly, "intelligence"

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1. Merab Mamardashvili, "European Responsibility," accessed June 24, 2019, https://mamardashvili.com/archive/interviews/responsibility-en.html.

2. The notion of ἀκοῦσαι ("to hear," "to have heard," "to listen to," "to have listened to," and occasionally "to obey") plays an essential role in both Greek and Judeo-Christian thought. For example, Heraclitus uses the verb ἀκοῦσαι in the context of λόγος (logos) and the understanding or oblivion of the Being of beings. Although Heidegger's hermeneutic pertaining to Heraclitus does not focus on the primordial phenomenon of hearing/listening as such, the necessity of hearing/listening to what is said in the logos in order to be able to understand "how entities comport themselves" is self-evident in the whole passage. See Martin Heidegger, *Being and Time*, page 229 according to standard numbering of the edition *Sein und Zeit*, 11th ed. (Tübingen: Max Niemeyer, 1967), hereafter cited as *SZ*. Translations shown in the paper come from the rendering Martin Heidegger, *Being and Time: A Translation of Sein und Zeit*, trans. Joan Stambaugh, SUNY Series in Contemporary Continental Philosophy (New York: Harper, 1996). Pages of the translation are shown in brackets. Heraclitus' complete Greek passage reads as follows: "τοῦ δὲ λόγου τοῦδ' ἐόντος ἀεὶ ἀξύνετοι γίνονται ἄνθρωποι καὶ πρόσθεν ἢ ἀκοῦσαι καὶ ἀκούσαντες τὸ πρῶτον· γινομένων γὰρ πάντων κατὰ τὸν λόγον τόνδε ἀπείροισιν ἐοίκασι, πειρώμενοι καὶ ἐπέων καὶ ἔργων τοιούτων, ὁκοίων ἐγὼ διηγεῦμαι κατὰ φύσιν διαιρέων ἕκαστον καὶ φράζων ὅκως ἔχει. τοὺς δὲ ἄλλους ἀνθρώπους λανθάνει ὁκόσα ἐγερθέντες ποιοῦσιν, ὅκωσπερ ὁκόσα εὕδοντες ἐπιλανθάνονται." Heraclitus, Fr. DK 1, according to the edition Heraclitus, *Fragmenta*, ed. Hermann Diels and Walther Kranz, in *Die Fragmente der Vorsokratiker*, 6th ed., ed. 1 (Berlin: Weidmann, 1951). In his thesis, *Heidegger Reading Heraclitus*, Brian A. Bard proposes the following translation for Heraclitus' passage: "Of this ever-being making-manifest men are lacking in understanding both before they hear and when having first heard. For though everything is according to this making-manifest they are like men without experience, those having made experiment of such words and deeds as I fully describe by determining each thing according to nature and telling how it is (comports itself). For the other men, however, as many things as they do while being awake remain hidden, in the very way which when sleeping they forget as many things." Brian A. Bard, "Heidegger Reading Heraclitus" (MA Thesis, San Francisco State University, 1993), Self-published by author at https://sites.google.com/site/heideggerheraclitus/heideggerreadingheraclitus?pli=1. Also, in Deuteronomy 6:4 the Septuagint translates the Hebrew *sh'ma* as ἄκουσον (listen, hear).

here is not just an artificial by-product of a highly organized technological structure, but a reproduction of mental operations *as human processes* through the operative techno-replication of the brain as a material substrate: the Dubrovskyan bio-digital avatar.[3]

In the present article, I shall focus on the anthropological paradigms of David Dubrovsky and Merab Mamardashvili and their relationship to the phenomena of cyberbeing and cyberculture.[4] My aim is to develop a critical approach to Dubrovsky's cybernetic anthropology and avatar-theory, along with its meaning and implications in our world-epoch, in contrast to Mamardashvili's historico-transcendental ontology tethered to the "traditional" paradigm of onto-reality as a non-synthetic, pre-virtual, "natural" environment. Mamardashvili and Dubrovsky each offer different answers to the same problems. They seek to arrive at a comprehensive conception of history, as well as of the relationship between history, language, and human fulfilment. For both thinkers, human aspirations towards perpetuity and meaning can be accomplished only in the context of a historical phenomenology: i.e. as a historical event. Yet, while for Dubrovsky the solution slips into history through the achievement of a radical technological singularity in the realm of a mixed bio-digital reality, for Mamardashvili this can be accomplished only via the open interconnectedness of a language essentially rooted in an experience of the "Gospel" occurring within the human heart itself.

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3. See David I. Dubrovsky, "Does Brain Research Make Reading Another's Thoughts Possible?," *Russian Studies in Philosophy* 56, no. 1 (2018), doi:10.1080/10611967.2018.1448639; David I. Dubrovsky, "Cybernetic Immortality: Fantasy or Scientific Problem?," *2045: Strategic Social Initiative*, http://www.2045.com/articles/30810.html. Originally published in Russian at the website of Vzglyad, https://vz.ru/opinions/2012/10/25/604264.html, hereafter cited in text as *CI*.

4. As regards how we should understand cyberbeing and cyberculture, I essentially agree with Alec McHoul, who approaches these cyber-phenomena from an onto-existential viewpoint as a form of bio-technological merging: "Cyberbeing, that is, would constitute a new relation between human being and equipment, to the point where the two cease to be distinct ontological categories in the strictest sense." But what seems to be the final point of arrival for McHoul, is in our case just an initial point of departure. Accepting cyberspace as the locus of cyberbeing, and accepting the merging between human and machine in cyberspace in terms that imply that neither of these continue to exist as distinct ontological categories, we ourselves shall interpret cyberculture as a mode of unconcealment of Being in history, and of man's most essential way of being as existence—albeit in an alienated way. The transcendental perspective, as well as the linkage between cyberculture, cyberbeing, and cyberspace on the one hand, and the essential occurrence of the unconcealment of Being as the meaning of a human being's life on the other, are totally missing in McHoul's essay. See Alec McHoul, "Cyberbeing and ~space," *Culture and Communication Reading Room*, Murdoch University, accessed June 24, 2019, http://wwwmcc.murdoch.edu.au/readingroom/VID/cybersein.html.

The notion of "cyberculture" comprises the entirety of the phenomena, production, exchange and consumption of information generated via digital technologies and interfaces. "Cyberbeing," meanwhile, refers to the ontological categories that determine the mode of being of cyberculture as a world-in-itself. My intention is to examine the phenomenon of cyberbeing as a "built-in" feature of a bio-electronic post-human ontology that impacts and transforms personhood into "cyborghood" in the context of an interactive digital framework of fictional transcendences, body-deconstruction and bio-technological interplays. Still, at the threshold of cybernetic *alētheia*, it remains to be determined whether and how the moment of technological singularity will definitely arrive and make possible the creation of a post-human, bio-digital interface that will reproduce human personhood through highly-developed artificial technological substrates. Also, among the most urgent tasks of thinking today is the need to interrogate the extent to which a virtual phenomenology of cyber-being will come to completely determine human self-consciousness, and whether *all* forms of *subjectivity* will then amount to a form of *unijectivity* or bio-digital, virtual subjectivity. While Dubrovsky seems to assume that the creation of a post-human, bio-digital interface is a possibility genuinely to hand, and that all our scientific-technological efforts should be oriented toward such a goal, the anthropological consequences of this positive, "optimistic" stance will be contrasted here with Mamardashvili's historico-transcendental anthropology. In this context, in the course of my dialogue with Dubrovsky's evolutionary epistemology for a transhuman era, I shall pay special heed to the phenomena of cyberbeing and cyberculture.[5]

Dubrovsky, Cybernetic Immortality,
and the Bio-Digital Interface

In 2012, the Russian scientist David I. Dubrovsky, a co-chairman of the Scientific Council of the Russian Academy of Sciences for Artificial Intelligence Modeling, wrote an article entitled "Cybernetic Immortality. Phantasy or a Scientific Problem?"—this being a shortened version of a book that he had written earlier in 1988.[6] In the aforementioned article, the author states that:

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5. For the concept of evolutionary epistemology, see D. T. Campbell, "Evolutionary Epistemology," in *The Philosophy of Karl Popper*, ed. Paul Arthur Schilpp, vol. 1 (La Salle, IL: Open Court, 1974); and also Michael Bradie and William Harms, "Evolutionary Epistemology," *The Stanford Encyclopedia of Philosophy* (Spring 2017 Edition), ed. Edward N. Zalta, https://plato.stanford.edu/archives/spr2017/entries/epistemology-evolutionary/.

6. David I. Dubrovsky, *The Problem of the Ideal: The Nature of Mind and its Relationship to the Brain and Social Medium*, trans. Vladimir Stankevich (Moscow: Progress Publishers, 1988).

creation of an autonomous life-support system for the human brain linked to a robot, an "avatar," will save people whose body is completely worn out or irreversibly damaged … Such technologies will greatly enlarge the possibility of hybrid bio-electronic devices, thus creating a new IT revolution and will make all kinds of superimpositions of electronic and biological systems possible. (*CI*)

According to Dubrovsky, this means, simply, that "this is the time when substance-independent minds will receive new bodies with capacities far exceeding those of ordinary humans. A new era for humanity will arrive!" (*CI*). In this sense, Dubrovsky can be regarded as the most important scientist involved—in both theoretical and practical terms—in the creation of an immortal bio-digital avatar as a radical substitution/complementation of mankind's pre-cybernetic, onto-real ontology. Even more, this thinker has come to establish what may be called a cyber-technological anthropology: one that makes him stand out as arguably one of the most important transhumanist scientists working today, as well as one of the most underrated, perhaps, where mainstream philosophical thinking is concerned. Dubrovsky's cyber-technological anthropology adopts as a premise the ontological postulate that the possibility exists of a process of ontogenesis having the form of an infinitely exponential controlled self-re-creation and transformation in the direction of cybernetic perfection and the moment of bio-digital singularity. Therefore, along with the possibility of curing diseases and making human life improve via technological intervention, a factual techno-immortality appears as a realistically attainable achievement. This is not just in complete consonance with Max More's definition of transhumanism in 1990, and the "Transhumanist Declaration" of 1998, but also elevates the views that go to make up the transhumanist stance to the highest scientific-technological level.[7]

   One of the most important directions taken in Dubrovsky's scientific approach concerns his perception of a human will-to-immortality as constituting an undeniable fact resulting from a natural continuation of the impulse of the will-to-life. This will-to-immortality, according to the

   7. "Transhumanism is a class of philosophies of life that seek the continuation and acceleration of the evolution of intelligent life beyond its currently human form and human limitations by means of science and technology, guided by life-promoting principles and values." Max More, "Transhumanism: Towards a Futurist Philosophy," *Max More: Personal Website*, Website not accessible, page archived at https://web.archive.org/web/20051029125153/http://www.maxmore.com/transhum.htm. Also, the "Transhumanist Declaration" states that "reduction of existential risks, and development of means for the preservation of life and health, the alleviation of grave suffering, and the improvement of human foresight and wisdom should be pursued as urgent priorities, and heavily funded "Transhumanist Declaration," *Humanity+*, accessed June 24, 2019, https://humanityplus.org/philosophy/transhumanist-declaration/.

authors of "The Cybernetic Manifesto," Valentin Turchin and Cliff Joslyn, cannot be fulfilled either via rational knowledge or traditional forms of religion and mysticism—what they call "metaphysical immortality," and which, they affirm, is nowadays in complete decline:

> One concept of immortality we find in the traditional great religions. We designate it as metaphysical. It is known as immortality of soul, life after death, etc. The protest against death is used here as a stimulus to accept the teaching; after all, from the very beginning it promises immortality. Under the influence of the critical scientific method, the metaphysical notions of immortality, once very concrete and appealing, are becoming increasingly abstract and pale; old religious systems are slowly but surely losing their influence.[8]

Moreover, neither can it be experienced as an impossible task, in a state of existential resignation. On the contrary, it must be overcome and resolved through a trans-disciplinary approach, and an overall integration managed and made possible by cyber-technology:

> Extensive prospects for this are opened by the convergent development of NBICS (nano-technologies, bio-technologies, information, cognitive and social technologies, and fields of scientific knowledge corresponding to them). Mutually enriching each other, these technologies create unprecedentedly powerful methods for transforming the human and the social environment, in particular, the possibility for constructing systems that are capable of reproducing the functions of life and thought on non-biological substrates. This is the path of trans-humanistic transformation, the transfiguration of the mind and the personality.[9]

Thus, attaining immortality is the central goal of Dubrovsky's scientific and anthropological agenda, something whose significance he manages to clarify beyond any reasonable doubt. This certainly distances him from the scientific reductionism and essentially mechanistic interpretation of life typical of Russian dialectical materialism:

> The "2045" Initiative puts the problem of cybernetic immortality in the context of a new model of civilization. Or rather, it urgently sets the problem of the

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8. Valentin Turchin and Cliff Joslyn, "The Cybernetic Manifesto," *Principia Cybernetica Web*, accessed June 24, 2019.

9. Ibid.

global future and evolution of the human being, the problem of preserving
earthly civilization in a situation of an approaching singular boundary, beyond
which it awaits either degradation or destruction, or a transition to a new level
of life activity. Therefore, cybernetic immortality is directly connected with the
problem of the immortality of the human being, and may serve as the pledge and
guarantee of the immortality of earthly civilization, and the human mind. (*CI*)

Another foundational premise of Dubrovsky's cyber-technological an-
thropology—now developed into an onto-epistemological system—is that
thinking, as a derivative function, can be reduced to its material matrix:
the neuro-biological structures of the brain. At this point, he invokes a
principle of iso-functionalism of systems that "essentially heralded the
beginning of the computer era" (*CI*). This iso-functionalism assumes that a
function of some given system can be reproduced or replicated in another
system (substrate) if the latter system can replicate or reproduce the func-
tional conditions of the former, albeit with different physical properties. In
other words, thinking, as a function of the bio-brain, can be reproduced or
replicated by a cyber-machine—which has different physical properties—if
this cyber-machine can replicate the functional structures of the bio-brain.
In Dubrovsky's own words:

> The idea of this principle is that the same complex of functions may be repro-
> duced on substrates with different physical properties. This means the funda-
> mental possibility to reproduce the functions of a living system and the brain
> on non-biological substrates, which also fully applies to mental functions (*CI*).

This is the ground-setting premise of Dubrovsky's cyber-technological an-
thropology: thinking, as involving not only rational operations but also
the existence of a human personality and self-awareness, can be achieved
on the technological substrate of a cyber-machine. Therefore, according
to Dubrovsky, a technological reproduction of the biological conditions of
brain functionality via cyber-technological devices can create a new material
substrate for thinking: not just for some "artificial thinking" on the part of
machines, but for human thinking itself, whose material substrate will be
artificially and technologically replicated in the cyber-device. Optimistically,
Dubrovsky adds that "this development will profoundly change the world; it
will not only give everyone the possibility of cybernetic immortality but will
also create a friendly artificial intelligence" (*CI*). Yet, despite his application
of the principle of iso-functionalism of systems and its necessary premise
that thinking is, essentially, a hetero-determined activity, Dubrovsky can

hardly be accused of reductionism. He seems to believe that despite being the result of brain operations, the thinking self retains an ontological peculiarity that cannot be reduced to or understood via its material substrate.

All the same, this idea appears to be refuted by the thinker himself in his work "Does Brain Research Make Reading Another's Thoughts Possible?" There, we learn that Dubrovsky believes that the principle of iso-functionalism of systems allows one to conclude that thinking and self—and therefore also consciousness—are replicable and reproducible via cyber-technological devices. The Russian philosopher states that self-awareness, as a quality of subjective reality,

> is realized at the level of the ego-system of the brain—a special structural and functional subsystem of the brain, which is responsible for the peculiar qualities of the person (it is also called "selfhood") (*CI*).

The Ego-system itself appears to be an interface of conscious and unconscious processes. For Dubrovsky, the conscious processes involved here are self-awareness and thinking: our subjective reality. However, the life of a person also includes unconscious processes—especially at the level of the brain and its neuro-dynamic codes. Ultimately, it is not clear how far unconscious processes are reducible to mechanical operations of the brain as the material substrate of personhood. Yet what is important here is that two main informational levels are involved in these conscious-unconscious processes, a genetic and a biographical one:

> The Ego system is a conscious and unconscious circuit of information processes, and includes two mutually connected levels: genetic and biographical, reflecting the history of the personality and its awareness (*CI*).

Genetic structure can be replicated through bio-engineering processing, while the biographical element can be supplied to a new cyber-device through electronic-digital transferals. In this way, the Russian scientist reduces the brain's functions to genetic material and our life-experiences to biographical information. From these premises, he constructs a theory that stands opposed to that of Searle:[10] one marked off from the latter by his insistence on the genetic and technical irreproducibility of selfhood and consciousness. In Dubrovsky's words:

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10. John Searle, "Can Computers Think?," in *Philosophy of Mind: Classical and Contemporary Readings*, ed. David John Chalmers (New York: Oxford University Press, 2002), 673.

A study and understanding of the specific functional structures of the Ego system of the brain, and their self-organization can open paths for creating an equivalent functional structure on a suitable non-biological substrate. Of course, we are still at the beginning of this path. But neural sciences are developed at extremely fast rates, and there are grounds to believe that in the next 10-15 years, there will be a major breakthrough in this field.[11]

According to Dubrovsky, the traditional self, consisting in self-consciousness and personhood and determined by the principle of identity, can find a digital metempsychosis or replication on a cyber-technological substrate and become an "avatar"—i.e. a function of a new onto-epistemological structure that he calls *cyberbeing*. In cyberbeing, "onto-reality" and embodiment become dispersed shadows within a chaos and "flux of stimuli" that can be immediately re-ordered and re-programmed in cyber-spatiality through "Game" as a joint-device that interfaces between "shadowed onto-reality" and cyber-being. Moreover, the totality of these complex processes is already unfolding in the globalized cyber-technological world, as part of a process of technomorphosis proper to the cyber-era itself. Yet what is meant by the notions of cyberbeing, cyberculture, and cyberspatiality? Despite the phenomena of cyberbeing, cyberculture, and cyberspatiality constitute the ontological and epistemological matrix of Dubrovsky's thought—or perhaps precisely because of that fact—the Russian scientist does not develop any philosophical analysis of them. My aim here is, therefore, to shed some light on the phenomenology of these events, which are responsible for the clearing and expansion of the cyber-era and its bio-digital Leviathan: the *homo cyberneticus*, "discovered" and described in 1968 by Aubrey E. Singer.[12]

Cyberculture, Cyberbeing, and Cyberspatiality
Cyberculture and cyberbeing are a destination (*Geschick*) of Western culture.[13] As our destination, we belong to cyberculture as cyberbeing insofar as they are now opening up the horizon of our own inner-worldliness and

11. Ibid.

12. See Aubrey E. Singer, "Homo Cyberneticus," *Nature* 218, no. 5144 (1968), 901. doi: https://doi.org/10.1038/218901a0.

13. For Heidegger's understanding of the notion of "destining" in history as crystalized in the word *Geschick*, see Martin Heidegger, "The Question Concerning Technology," in *Basic Writings*, ed. David Farrell Krell (New York: HarperCollins, 2005), 329. "We shall call the sending that gathers [*versammelnde Schicken*], that first starts man upon a way of revealing, *destining* [*Geschick*]."

preserving the essence of human dwelling as *homo theologicus*,[14] albeit in an alienated form—i.e. as a fictional epiphany of the most proper form of dwelling, which is happiness and perpetuity. Cyberculture is a correlate of cyberbeing as a form of technological *propriation.* As something dwelling historically in the neighborhood of nihilism, cyberculture appears in its first moment as a process of onto-emptying that sets forth a self-managed, fictional transcendence. Thus, there lies in the very essence of cyberculture a power of control and will to Transcendence in the form of *prothesis*: a tool intended to "make things appear" to be instances of pure, perpetual self-identity regardless of what and how they really are. The human being exists in a way that in each case he or she deals with Being as perpetuity, with time as intentional succession, with persons as self-coherent identities, and with life as a process of innerworldly openness to Transcendence rather than merely a "biological" event. These are, to use Husserl's jargon, onto-formal categories pertaining to humanity's way of being. Hence, cyberbeing can hardly be said to be alien to this. To sum this up, we can state that man's existence is cleared by Being, such that every human being is:

- Being-towards-meaning (the onto-semantical dimension)
- Being Transcendence (the onto-theologal dimension)[15]

14. This notion of *homo theologicus* should not be confounded with the standpoint developed by T. Howland Sanks, SJ, who, as the author himself explains, seeks to understand the new place of theological studies as a domain of knowledge within the contemporary cultural field, and not to excavate the properly *theologal* dimension of human being, which is my own ultimate goal. Howland's perspective is determined by the sociologist's gaze, and hence is guided by an interest in relocating theology as knowledge within the area of a complex interaction between multiple cultural fields. See T. Howland Sanks, "Homo Theologicus: Toward a Reflexive Theology (with the Help of Pierre Bourdieu)," *Theological Studies* 68, no. 3 (September 2007): 515–30. doi:10.1177/004056390706800302.

15. I use "theologal" here in a way that is different from, though not totally opposed to, "theological." While "theological" conveys the meaning of an intellectual, analytic knowledge of God and God's things, "theologal" aims to grasp the original sense of "θεολόγος" and "θεολογία" in, for example, the Oriental Christian experience. In this tradition, Saint John, the writer of the fourth gospel, is called "Theologos" ("Theologian"), and Saint Simeon (949–1022 AD) is called "Neos Theologos" (i.e. "New Theologian"). I should add that I am happy here simply to pass over Aristotle's use of the words "θεολογία" and "θεολόγος" just to contrast the false knowledge of "theologians" with the real *episteme* acquired only through the "philosophein." See *Μετά τα Φυσικά* (*Metaphysics*), in *Άπαντα* (*Complete Works*) 908ᵃ, βιβλίον Α´ 983b5-10, τόμος 10, Αρχαία Ελληνική Γραμματεία «Οι Έλληνες» (Αθήνα῭ Εκδόσεις Κάκτος, 1993), 54. For the English translation see *Aristotle in 23 Volumes*, Vols. 17, 18, 1.983b, trans. by Hugh Tredennick. Cambridge: Harvard University Press; London: William Heinemann Ltd. 1933, 1989. Also, Aristotle used the term *theologia* to designate what he called the "first philosophy." See *Μετά τα Φυσικά* (*Metaphysics*), ibid., 982b, 25–30, 58. For the English translation see *Aristotle in 23 Volumes*, ibid, 1.983a. At the same time, Aristotle himself used the term "θεολογία" to designate what he called "first philosophy," see Ibid., 982b25–30. At the same

- Being a contradictory unity between inner-worldliness and beyond worldliness (the energetic dimension)
- Being an intentional temporality (the eschatological dimension)
- Being a will to bliss in perpetuity (the theanthropic dimension)
- Being a subject-person in the twofold structure of Divine-human / human-human transpersonal consciousness (the perichoretic dimension).[16]

In the essence of cyberbeing as destination, the onto-formal categories of humanity's way of being also show up: death-mediated perpetuity, intentionality, identity, and openness to Transcendence. However, being alienated, all these onto-formal categories acquire a negative facticity in the context of actual cyber-ness, as a fictional antithesis of the real: identity is determined by a decentered manifoldness, and the horizon of intersubjectivity, as the only possibility of human encounter, morphs into a meta-subjective structure leading to a negative unijectivity, while Transcendence turns into a disintegration of personhood into a poly-topic plurality, and life boils down to the mere ability to exchange data and programming/processing information in the all-embracing matrix of the cybergame. Herbert Marcuse's "one-dimensional man" turns into a decentered poly-factorial creature, and the Hegelian formula "the I is the Us" keeps its form but changes its essence. The essence of Ego is now determined by the incorporation of a polyphony without synthesis that affirms its identity in the moment of pure difference, where the experience of limit between "inner" and "outer" itself becomes not only "blurred" and displaceable, but also poly-topic and technologically reprogrammable.

This new form of cyber-ontology constitutes the essence of cyberbeing's self-referentiality. Moreover, it would appear to be a natural process of formation of a higher level of universal control. According to the fifth thesis of Turchin and Joslyn, such a control of "metadata" is essentially linked to

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time, Aristotle himself used the term "θεολογία" to designate what he called "first philosophy," see Ibid., 982a5–10. Thus, as something representing a Transcendental of human being's way of Being, the expression "onto-theologal" seems more appropriate. The onto-theologal experience is radically opposed to onto-theology as a form of metaphysics.

16. From the Greek "περί" (peri), meaning "around" or "together," and "χωρέω," meaning "to contain" or "to fit in a space." *Perichoresis* (περιχώρησις) (or interpenetration) is a term in Christian theology, first encountered in the Church Fathers, that later underwent rejuvenation thanks to such contemporary figures as C. Baxter Kruger, Jurgen Moltmann, Miroslav Volf, and John Zizioulas, among others. The term originally referred to the mutual inter-participation and indwelling within the threefold nature of the Trinity: God the Father, Son, and Holy Spirit. I use it here to indicate the inter-participation of the divine and the human as an ontological Transcendental of human being.

the dawn of a new metasystem as part of the unstoppable, evolutionary metasystem transition:

> When a number of systems become integrated so that a new level of control emerges, we say that a metasystem has formed. We refer to this process as a metasystem transition. A metasystem transition is, by definition, a creative act. It cannot be solely directed by the internal structure or logic of a system, but must always come from outside causes, from "above."[17]

The dominion of cybernetics as a form of technology and a new form of universal control entails an onto-enframing.[18] In this sense, it is clear that despite their critique of traditional metaphysics, these authors are thinking within the terms of the epistemological and ontological thread associated with the most traditional approach of Western metaphysics. Onto-enframing not only implies a conversion of everything into a "being-at-hand" and "resource" as part and parcel of the essence of technology. It is also an interpreting of all phenomenon as data, and therefore as reprogrammable information. Onto-enframing is a form of dominion which responds to the way cyberbeing is. Thus onto-enframing, the emergence of today's cyberculture with its interactive logic, and the processes of ethico-ontological decentering, techno-hedonism, surface modeling, self-recreation, etc., that are its byproducts, have determined what Heidegger called "*das Unheil*" ("the malignity") of our epoch: the oblivion of the Sacred ("*das Heil*").[19]

Nevertheless, cyberculture is neither the opposite of the Sacred nor its absolute oblivion. On the contrary, it is a peculiar way of clearing of the Sacred as a destination in post-industrial society. And in this cyber-ness there is already something that belongs to the Sacred and to the essence of the human as *homo theologicus*. It is the spell before the appearance of beings (the platonic νῦν δ᾿ἠπορήκαμεν...)[20] and the wonder of a poly-topic unijectivity: how can I project myself beyond myself in the horizon of a world that shows well-distinct "entities out there," but whose ontic possibility as space, time, identity, difference, etc., has ontic-ontological preeminence in

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17. Turchin and Joslyn, "The Cybernetic Manifesto."

18. For the concept of "enframing" (*Gestell*), see Heidegger, "The Question Concerning Technology," 325.

19. Heidegger, "Letter on Humanism," in *Basic Writings*, 254. "Perhaps what is distinctive about this world-epoch consists in the closure of the dimension of the hale [*des Heilen*]. Perhaps that is the sole malignancy [*Unheil*]."

20. "Now we have become perplexed," see "Sophist," in *Plato: Complete Works*, ed. John M. Cooper (Indianapolis: Hackett Publishing Company, 1997), 244a.

my own way of being? In the essence of cyber-being, the unconcealment of Being dawns and propriates, yet still in an alienated way. The bio-synthesis of these onto-cybernetic processes is the *uniject* as a bio-digital interface whose existence takes place essentially in the virtual dimension of cyber-being. The phenomenological determination of the uniject is *unijectivity* as "the sending that gathers"[21] and the way of being human in cyberbeing.

Understanding Unijectivity

Unijectivity, understood as different from a mere subjectivity determined by objective beings and other subjectivities, is something I shall treat here as being a decentered, virtually networked, in-process form of subjectivity, construed via the cyberbeing's structures of cyber-hedonism (cybernetic self-indulgence), fictional transcendences, and technological ontogenesis, etc., and gathered together by a virtual interface—i.e. "Virtual Game" as a joint-device.

Understanding unijectivity means also understanding the relationship between the real person and the avatar. Cyberbeing summons the avatar as a virtualization of the biological system (the real person) for the sake of cyber-unijectivity. This corresponds to the basic premise of Dubrovsky's evolutionary epistemology, and to his prognosis of a full merging between human and avatar. Indeed, unijectivity is something like a correlate of what John von Neumann, in 1958, called a technological singularity. Stanislav Ulam, the same year, described the "ever accelerating progress of technology and changes in the mode of human life, which gives the appearance of approaching some essential singularity in the history of the race beyond which human affairs, as we know them, could not continue."[22] Unijectivity appears when a real subject becomes a cybernetic function of a self-replicating automaton. Yet thanks to the person-centered character of human intentionality, this automaton also acquires a human profile and becomes an avatar—so that we may then speak of a "hacked subjectivity" or "*minus*-subject" and "*minus*-subjectivity." Now both of these—the bio-subject and the avatar—are brought into cyberbeing as each other's replicants: i.e. as fictional bioengineered entities mirroring each other as reciprocal operative functions.[23] This in turn gives rise to what has come to be known as "avatar

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21. See note 19.

22. Stanislaw Ulam, "John von Neumann 1903–1957," *Bulletin of the American Mathematical Society* 64, no. 3 (1958): 8. doi: http://doi.org/10.1090/S0002-9904-1958-10189-5.

23. One of the most exciting real-life examples of this process of bio-digital merging is the phenomenon of the "Gatebox," which enables the possibility of living with a fictional character in a fictional cyberspatiality determined by cyberbeing. Certainly, a precondition for this to take place is the existence of a "minus-subject"—hacked by the avatar as a fictional

syndrome," understood as a cyber-disease that, in its first stage, inhibits in human beings the responsibility to dwell in the realm of onto-reality. The uniject, after all, also possesses a consciousness that calls it: one that calls it to a fictional transcendence. Indeed, what calls the uniject is Game[24] as the most original joint-device within cyberbeing. I shall refer to this imperative that calls within the uniject's consciousness, that gathers it together and leads it towards Virtual Game, the "call-to-play." Therefore, Game as the transcendental horizon of the call-to-play constitutes the uniject's ultimate virtual destination. This virtual uniject is the "cyberperson"—not just a new form of technology, yet still technology-determined in its very essence. It is a new form of subjectivity that results from the structural-functional crossing of a cyber-mediated self-consciousness with the cyber-brain as a technological singularity, and also not merely a technological superintelligence as envisaged by Vernor Vinge, Raymond Kurzweil, and surely also by Dubrovsky himself. The cyberperson is a bio-cybernetic form of intelligent "life" involving hacked subjectivities (minus-subjectivities) and extremely developed forms of artificial intelligence. The networked relationships amongst cyberpersons constitute a peculiar phenomenon, which we shall here call "virtual interplay."[25]

character, where "fictional" needs not mean "unreal"—that *propriates* itself as a cyber-entity dwelling in cyber-reality. See https://gatebox.ai/home/. The book *Kiss Me First* highlights this phenomenon of unijectivity as a complete immersion of real life into virtuality conforming to a mixed reality in the form of the virtual world "Azana," through a joint-device (a cyber-game) that gathers together onto-reality and virtuality to create a bio-digital interface in a fictional cyber-chronotope. See Lottie Moggach, *Kiss Me First* (New York: Anchor Books, 2014). See also the homonymous TV series based on the book. See *Kiss Me First*, directed by Misha Manson-Smith, written by Bryan Elsley, *Channel 4*, April 2nd 2018, and *Netflix*, June 29th 2018. https://www.netflix.com/browse?jbv=80097225&jbp=4&jbr=3.

24. In cyberbeing, Game constitutes the most original formative force and transcendental unity and destination of the whole system. In this sense, Game is to cyberbeing what God is to onto-reality. As the ultimate source of being, meaning, and value in cyberbeing, Game is also the Meaning of Being and, therefore, only in the experience of gaming—which is much more than just "playing a cyber-game"—can the uniject find its "meaning of being." In this context, the "call-to-play" is a "call of consciousness" as well as a mode of self-attestation for the uniject. The experience of Game as the perfect convergence of pleasure, meaning, and truth defines for the uniject the horizon of the Mystical. Responding to the "call-to-play" constitutes the highest form of responsible existence, as well as the most complete form of fictional transcendence in cyberbeing. For this, see as an example Mamuro Oshii, *Gate to Avalon* (2001; Miramax Films, 2003), DVD. The choice of the mystical Isle of Avalon as the film's title is by no means coincidental.

25. To further expand this concept in the most proper way, a complete phenomenology of space in general and of cyberspatiality in particular should first be developed. This, for obvious reasons, cannot be pursued here.

The Problem of Life De-Substantiation, Meaninglessness,
and Cyber-Mythopoiesis: The Cyber-Cultural Meaning of Myth
The problem of cybermyth and cyber-mythopoiesis emerges as important
here, due to the inextricable cultural link between life, meaning, myth, self-
and world-interpretation, and the problem of the Real and the destination of
human being in history.[26] Myth will be interpreted here in an all-embracing
way, following the model of Aleksei Losev's notion of myth as something
more than just a fictional construction (in the sense of an alternative to
"reality" and truthful speech) in which cultural, anthropological and on-
tological "ideals" and "ideas" somehow come to be represented. We shall
treat myth here as the primordial intentional onto-epistemological structure
of the human being, and thus a radical condition of the possibility of his
or her historical self-consciousness, symbolic-allegorical *propriation*, and
self-interpretation. Thus, as Losev puts it,

> Myth is the most necessary—one should say directly, transcendentally neces-
> sary—category of thought and life. There is nothing contingent, unnecessary,
> arbitrary, invented, or fantastic in it at all.[27]

Therefore, in our effort to understand the meaning of cyberculture today
as an unconcealment of Being in history, we must address the phenom-
enon of mythopoiesis and its transformations from pre-virtual "traditional"
onto-reality to cyberworldliness as experienced in today's post-industrial
society. In short, we must try to grasp how traditional mythopoiesis itself
changes in the new context furnished by cyberworldliness.

  Cyber-myth is the virtual substantiation of cyber-unijectivity. Its func-
tion is no longer that of preserving, within the cultural symbolic imaginary,
anthropological ideals, while opening up for them a horizon of possible re-
alizations in history or beyond. Myth *qua* cyber-myth allows Virtual Game
to work as a joint-device, interfacing between onto-reality and cyberworld
as the operational horizon in which corporality, as a flux of stimuli, becomes
oriented (i.e. re-ordered and re-programmed) in a direction previously
opened up, preserved and guaranteed by the cybergame itself. Mythical

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  26. For a more complete development of the notions of traditional myth, cybermyth, and
cyber-mythopoiesis, as well as for their relationship, see Inti Yanes-Fernandez, "The Cross
and the Sword: Political Myth-Making, Hegemony, and Intericonicity in the Christianization
of the Iberian Peninsula and Britain" (PhD diss., Texas A&M University, 2018), 338–50, http://
hdl.handle.net/1969.1/173380.
  27. Aleksei Fyodorovich Losev, *The Dialectics of Myth*, trans. Vladimir Marchenkov (New
York: Routledge, 2003), 8.

entities such as, for example, Arthur, El Cid, Indra, Gilgamesh, are now not archetypes, prototypes or paradigms for imitation, treating them as horizons of human realization in the sense of the traditional hero or of divinity. Myth, now, is "cybermyth," i.e. a virtual function of the operation of onto-conversion, where the body turns from being a de-substantiated entity (as a plural flux of stimuli) into an "avatar" construed as a virtual concrescence of the bio-digital interface.

Whereas mythical figures in traditional mythopoiesis are higher in power and ontological degree than mankind and the world, and thus open the way to human self-completion, in the cyberworld, myth as cybermyth becomes the functional/operational correlate of the "avatar" as the "real," properly self-identical entity. Now the entity to which the experience of one's own self is transferred is the avatar. In other words, in traditional mythopoiesis, person and myth coincide and merge together to the point of being, on many occasions, impossible to tell apart, whilst in the cyberworld, the person as avatar differs from myth insofar as myth *qua* cybermyth is only a stimulant correlative of the real process—namely, Cybergame as the *Urphänomen* that, mirroring onto-reality's Absolute Being under the form of a fictional Transcendence, paves the way towards the cyberworld via an all-pervading process of re-ordering and re-programming.

In the cyberworld itself, there are no "ideals" in the traditional sense of natural potentialities of being, there to be realized through knowledge (usually of the self) or praxis (usually of a transformative sort). Instead, there are only operations based on ordering and programming, and pleasure as "techno-hedonism," which consists here in the experience of onto-conversion through a re-ordering and re-programming of corporality as a flux of stimuli and body-decarnation. In this experience, personhood appears as unijectivity within the cyber-preserving chronotope of the avatar enclosed by the "transcendental horizon" of Game.[28] In traditional onto-reality, meanwhile, myth constitutes a determining mode of reference for culture, and so the mythical entity is also a hierarchical instantiation of power. In the cyberworld, though, myth is just a function of the cyber-gathering as "calling-to-play" and "stimuli-reordering-and-reprogramming," subjugated to the gathering power of the avatar as the highest possible cyber-facticity: the *in(cyber)carnation of Game*.

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28. For the notions of "cyber-corporality," "body-decarnation," and "virtualization of the body," see Mariola Anita Sulkowska-Janovska, "The virtualization of body," *Analecta Husserliana (The Yearbook of Phenomenological Research)*, ed. Anna-Teresa Tymieniecka, 189–95, vol. 112 (Dordrecht Springer Science and Business Media, 2012).

In this sense, the essence of cyber-ness just is the gathering together as avatarhood, by myth, within the hyper-chronotope of Game. For instance, in the film *Avalon*, "nobody" cares about the Isle of Avalon as a mystical chronotope or symbolic-allegorical reference to human mystical transformation. Yet neither is it just a mere name: "Avalon" as myth is here the "calling-to-play" as a gathering in the in(cyber)carnation of avatarhood. So, Avalon itself, and all of its ethico-ontological horizons of meaning, are completely meaningless here: what is important now is not "becoming something beyond," but rather being gathered together by the call-to-play of cybermyth, for the sake of re-ordering and re-programming the body as a decentered flux of stimuli. This systematic de-substantiation that belongs to the essence of cyber-being will be called here "surface modeling"—it being a function of the more general process of the genesis of fictional transcendences.

So the essence of cyberbeing gathers together a bio-digital interface in cyberspatiality as the virtual facticity of cyberworldliness: i.e. the avatar. The re-ordered and re-programmed body, along with a consciousness in(cyber)carnated in the avatar called-to-play by cybermyth (where this amounts to a cyborg-like meta-personhood), dwells necessarily "in-the-world." But what happens then, when corporality turns into a flux of stimuli moving out toward re-ordering and re-programming, and consciousness morphs into a decentered polynomial structure anchored in the facticity not of traditional "meatspace"[29] and the physical body, but of avatar and cyberspatiality? Is there room there for any form of "dwelling," given that dwelling is the way humanity exists as "in-the-world," propriating itself in openness to Transcendence?

Indeed, there is. Humanity exists in a way that is such that it cannot prevent itself from dwelling. The question, then, is this: where does the cyberperson dwell? It has been shown that the cyberworld is necessarily a form of spatiality, i.e. a cyber-spatiality. In this new context, *also*, the cyberperson as an avatar-centered self-creature called-to-play by myth remains an existential *ek-stasis*. As self-projecting intentionality, human beings always keep on "timing" and "spacing," as a propriating towards the experience of meaning. This means that they exist in the cyberworld according to the most peculiar way of timing and spacing given to them

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29. For the opposition between "meatspace" and "cyberspace," see Josh Conterio, "Virtual Resurrection: The Dead Who Went to Cyber-Heaven," *i09: We Come from the Future*, http://io9.gizmodo.com/5281164/virtual-resurrection-the-dead-who-went-to-cyber-heaven.

within this cyber-horizon. The pre-virtual human being turns, in the cyberworld, into an avatar gathered together in cyberspatiality (in[cyber] carnated) by myth.

Yet what, we may ask, is the essence of cyberspatiality? This essence must certainly be that for whose sake the whole process of gathering together, calling-to-play, de-substantiating cyber-mythopoiesis, and in(cyber) incarnation takes place: i.e. Game itself as a joint-device. Even so, this is surely not "a game" in the applied sense of playing a "video game" or a "board game." Rather, it is "a game" in the most essential manner: that of being a joint-device operating between onto-reality on the one hand and cyberworldliness on the other, for the purpose of achieving onto-conversion as a re-ordering and re-programming of the body and consciousness—the former as a chaotic flux of stimuli, the latter as a decentered polynomial matrix. Therefore, while the human being as "being-in-the-world" dwells as propriating (*Ereignis*) in the neighborhood of things and his or her own possibilities, the cyberperson is gathered by myth toward his or her cyberspatiality "from a most radical instance." In other words, both cyberworldliness and its facticity as cyberspatiality respond to the call of a more originary unconcealment of Being: Game as a form of "being-in-freedom"—i.e. "being open in the freedom of Being" to Transcendence as pure no-thing. In this sense, humanity dwells in cyberspatiality as "Cyberbeing-in-Game," and it is here that the essence of cyberworldliness and cyberspatiality comes to be disclosed: there is nothing within these that is more solid, more "stable," and more perpetual than Game itself. It is quite natural that while Being, as its name suggests, still has absolute preeminence as either a primary substance or an *Urphänomen* with respect to the essence of onto-reality, in cyberworldliness it has morphed into a decentered, self-reordering and self-reprogramming polynomial device: Game. The latter is now the absolute principle *of* control and *in* control. As a consequence, the human being's way of being, called to be avatar by cybermyth, ceases to be ontological and becomes operational: i.e. a "cyberbeing-called-to-play-in-Game," a self-preserving "replicant" within the cyber-horizon of fictional transcendences.

And now we face a very radical question indeed: is it possible at all to avoid human in(cyber)carnation, when all of our human experiences are mediated by cyber-technologies that "call-to-play" just for the sake of Game? If Turchin and Joslyn should happen to be right, then we simply cannot, because the process of in(cyber)carnation as an avatar for the sake of Game would be essentially linked to human being's onto-formal Transcendentals. Therefore, as a destining of revealing, this is itself a process of unconcealment for humans:

> On the other hand (depth), we foresee the physical integration of individual people into "human super-beings," which communicate through the direct connection of their nervous systems. This is a cybernetic way for an individual human person to achieve immortality.[30]

In cyberbeing, there is a total dissociation between body and self: the body itself becomes a cyber-function, in the sense of being an "app" of cyber-reality. The essence of cyberspatiality is the paradoxical device of time-less temporality, de-centered circularity, and networked, one-dimensional self-replication that opens up a virtual structure of diversity. For the first time, the essence of humanity and consciousness, as well as their humanly primordial ontological structures, have been "created" through and, up to certain extent, even by man himself, in a totally virtual cyber-world. That is why we refer to this phenomenon here as a "fictional transcendence." Cyborg-ness, in part as imagined by D. S. Halacy in *Cyborg: Evolution of the Superman* (1965), and by Alan E. Nourse in *The Blade Runner* (1974), may now become a built-in feature of human ontology. At this point, the very notion of nature (*physis*) as opposed to technical production (*poiesis*), so dear to the Ancient Greeks, turns out to be meaningless and just part of an already shifted epistemologico-semantic paradigm.

DUBROVSKY'S PROPOSAL: A CASE FOR CYBERNETIC IMMORTALITY

Dubrovsky stresses the need for caution, and acknowledges the difficulties inherent in his project. In his critique of Bolonkin's overly optimistic pre-diction of achieving immortality by 2020, and IBM's announcement about creating a supercomputer with an information capacity equivalent to the human brain by 2019, the scientist tells us that,

> Here the most important thing is lacking—the thing that has been called awareness, which has the inalienable quality of subjective reality. The most complex and difficult thing in the problem of cybernetic immortality is re-producing in a non-biological medium the self-organization of information processes which create the quality of subjective reality.[31]

Within the framework of dialectical materialism combined with a neuro-physiological approach, Dubrovsky bases the possibility of cyber-immor-tality on the idea that the whole of "subjective reality" can be understood

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30. Turchin and Joslyn, "The Cybernetic Manifesto," 11.
31. Dubrovsky, "Cybernetic Immortality."

as a neurodynamic process determined by "mirror-mechanisms of sensory-motor transformations."[32] The essential notion here is that "any phenomenon of subjective reality whose content is transmitted to us in the form of "natural" code initially exists as a neurodynamic code in an individual's brain."[33] All the phenomena of subjective reality can be understood as brain-encoded: i.e. reflecting a primary sensory-motor mechanism that transmits meaning to all articulated and non-articulated language. Even self-awareness, as a phenomenon of subjectivity, must be recognized as a brain-encoded process. Therefore personhood as such, together with all its interior processes and external networks of meaning, is reduced to the complex neurodynamic codes in individual's brain. In this light, it is possible to define a twofold relationship between neurodynamic codes as brain functions, subjectivity, and objective reality (construed as taking in the totality of non-subjective phenomena): the ontological relationship, and the semantic relationship. We thus have the following:

(1) The ontological relation: neurodynamic codes as brain functions are equivalent to (bear a functional-structural correspondence to) subjective reality (a set of person-tethered phenomena).

In logico-ontological terms, Dubrovsky works with the assumption that there is a functional-structural correspondence between neurodynamic codes as brain functions and subjective reality. This is not, however, a one-way and rigid equivalence, but rather a non-rigid and, most properly, a generic one.[34] This is important, because it is the non-rigid, generic kinds of dependence of human subjectivity upon the material substrate of self and thinking that render Dubrovsky's utopia of techno-replication of both the self and the process of thinking at least theoretically possible. If we follow Tahko and Lowe, we can certainly say that the functional-structural correspondence between neurodynamic codes as brain functions (F) and

32. Dubrovsky, "Does Brain Research Make," 22.

33. Ibid., 24.

34. For a complete formulation and exegesis of rigid, non-rigid, and generic kinds of existential dependence, see Tuomas E. Tahko and Jonathan E. Lowe, "Ontological Dependence," in *The Stanford Encyclopedia of Philosophy*, ed. Edward N. Zalta (Winter 2016 Edition), https://plato.stanford.edu/archives/win2016/entries/dependence-ontological/. Rigid existential dependence (EDR) is defined there as follows: x dependsR for its existence upon y =df Necessarily, x exists only if y exists. Meanwhile, non-rigid existential dependence (EDN) is defined thus: x dependsN for its existence upon the F = df Necessarily, x exists only if the F exists. Generic existential dependence (EDG) is defined this way: x dependsG for its existence upon Fs = df Necessarily, x exists only if some F exists.

subjective reality (x)—with this correspondence construed as Dubrovsky does—can be defined as a non-rigid, generic dependence of x upon F. The kind of non-rigid dependence involved is described by Tahko and Lowe in the following terms:

The thought here is that—to use the language of "possible worlds"—"the F" in any instance of (EDN) might well denote different entities in different possible worlds. So, for example, it might be said that a material object x depends N for its existence upon the matter composing x, even though it might have been composed of different matter, because in every possible world in which x exists the matter composing x in that world exists in that world.[35]

Clearly, the bio-brain and its techno-replication are understood by the Russian scientist as different entities engendering similar functions, while their respective operative outcomes are confined to different worlds: onto-reality (in the case of the bio-brain's operations) and cybernetic mixed reality (for operations of the bio-brain techno-replication). The complete convergence of bio-brain and bio-brain techno-replication would, at an anthropological level, make possible the phenomenon of cyborg-ness as a transhuman singularity within the virtuality continuum—i.e. an ego-tethered mixed reality.[36] In that sense, this kind of non-rigid dependence of human subjectivity on neurodynamic codes as brain functions sheds light on the fact that subjectivity, and all of the complexity of its processes, could also be attained, in Dubrovsky's view, via a technological, brain-function-replicating substrate, in the moment of a mixed-reality singularity. This non-rigid, modal-existential form of dependence means here that, following Dubrovsky, an entity (human subjectivity) depends on another entity (the bio-brain) in order to exist in a way that it (i.e. human subjectivity) poten-tially could exist, even if the primary entity (the bio-brain) does not, on condition that an entity *other than the bio-brain* (for example, an intelligent machine) could (re-)enact the operations of the primary entity (the bio-brain). It is not just a formal-functional, but also an ontological transference.

Besides being non-rigid in ontological terms, this relationship is also *generic* insofar as subjectivity depends on either the bio-brain's or the cyber-brain's neurodynamic codes to exist in a generic way, implying that the brain and the neurodynamic codes, as component parts of subjec-tivity, could be *something different* as regards matter and content, while

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35. Ibid.

36. See Paul Milgram and Fumio Kishino, "A Taxonomy of Mixed Reality Displays," *IEICE Transactions on Information Systems*, vol. E77-D, no.12 (December 1994).

necessarily remaining the determining component parts in both a material
and a formal-ontological sense.

Hence the bio-brain's natural biological structures (neurons and syn-
apses), as material components, could be replaced by electronic circuits and
structures that accomplish *the same formal function* of producing human
subjectivity, preserving the relation of dependence—inherited from subjec-
tivity—on a determining material substrate that is either the bio-brain or
some electronic circuits. This kind of dependence is, as mentioned above,
both non-rigid and generic:

Composite objects are existentially dependent objects in the sense of
(EDG), since they require the existence of proper parts (set F as "proper
part of x" in (EDG)). Using the previous formal notation, we could express
(EDG) as "$\Box$ (Ex $\rightarrow$ $\exists$yFy)." Here we have added the existential quantifier
"$\exists$" as well as the general term "F" to express the thought that "x generi-
cally depends for its existence on something being an F," or alternatively
"x generically necessitates F."[37]

So, a generic notion of existential dependence (EDG) can be defined in
terms of the idea of x depending$_G$ for its existence upon F, where the kind
of dependence is at the same time necessary in form and contingent in mat-
ter. Therefore, in terms of operational features (form), x exists *only if some
F exists*,[38] while in terms of material nature (matter), x *may exist linked to
different Fs* on condition that F is a self-reproducing / thought-replicating
material substrate, where x equals human subjectivity, G indicates the kind
of dependence (*generic*), and F is the *material substrate* of self and thinking,
consciousness, and subjectivity as a whole—this being either the bio-brain
or the electronic, intelligent machine, with neurodynamic codes as brain-
circuit functions. While a functional correspondence is necessary—both the
bio-brain and the cyber-brain must be effective media for the processes of
subjectivity—the material relationship remains a merely contingent one:
it could be either a "natural" medium (bio-brain) or an "artificial" creation
(cyber-brain).

The kind of dependence of human subjectivity on a material substrate
involved here—as non-rigid—indicates that the former depends for its exis-
tence upon the existence of the *very kinds of proper parts* that the latter has,
but only contingently. So this relative—i.e. non-rigid—dependence makes
possible the generic kind of dependence, which in turn consists in the fact
that these *very kinds of proper parts* pertaining to the material substrate

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37. Tahko and Lowe, "Ontological Dependence."
38. Ibid.

can be replaced with a different set of elements that become *proper parts* by fulfilling the same function, so that they assume the role of an ontological cause of subjectivity itself.

The second form of relationship between neurodynamic codes as brain functions, subjectivity, and objective reality as the totality of non-subjective phenomena is the semantic one:

> (2) The semantic relation: neurodynamic codes as brain functions are equivalent to (bear a pragmatico-semantic correspondence to) both external/objective and internal/subjective reality (information encoding), which on their part stand in the same kind of relation of equivalence to "natural"/"foreign"[39] signs (ways of encoding and re-encoding information). Also, the latter are equivalent to (bear a pragmatico-semantic correspondence to) reception/interpretation (decoding and (re)encoding of communication input in and by the interlocutor), where this makes a communicative transaction possible in both pragmatic and semantic terms.

As a semantic process, the relationship between these factors will be one of meaning-making equivalence (symbolic, denotative, connotative, etc.), rather than material determination. This means that:

> (2.1.) neurodynamic codes as brain functions are equivalent to (bear a semantic correspondence to) external/objective and internal/subjective reality (information encoding);

39. Dubrovsky seems to use the term "foreign" in this context with the meaning of coming from without, and deriving from the interlocutor's communicative act: i.e. being external to the abstract subject he is taking as a point of reference. The term "foreign" seems in this case to have a referential rather than just an ontic-ontological meaning. (It does not seek just to differentiate between natural and artificial, arbitrary or conventional signs, but also to indicate that a "natural" representation can be a "foreign" sign for a subject when coming from another, different subject, regardless of its conventionality.) Therefore, "foreign" seems here also to indicate the external, "strange," relationship between the sign and the subject. For this reason, I have decided to use it in the manner of Dubrovsky himself. See Dubrovsky, "Does Brain Research Make," 25: "When, for example, I see a tree in front of my window, like every phenomenon of subjective reality I obtain it in the form of a "natural" code, directly: I experience the image of a tree while knowing nothing about its neurological carrier, without sensing it. For anyone else, my image exists in the form of a "foreign" code, a manifestation of the relative closedness of the individual's subjective world."

(2.2) external/objective and internal/subjective reality (information encoding) are equivalent to (bear a semantic correspondence to) "natural"/"foreign" signs (ways of information encoding and re-encoding), in both natural (the image of a tree and the meaning of a real tree) and synthetic-arbitrary ways (the word "tree," "dendron," árbol," etc., and the meaning of a real tree);

(2.3) "natural"/"foreign" signs (ways of information encoding and re-encoding) are equivalent to (bear a semantic correspondence to) reception/interpretation (decoding and (re)encoding of communication input in and by the interlocutor), where the "cycle" of meaning-producing as de-coding and re-encoding reception and interpretation comes to be completed.

From the relations above, it is then possible to conclude that:

(2.4) neurodynamic codes as brain functions exhibit a biconditional—i.e. an "if and only if"—kind of relationship with reception/interpretation (decoding and (re)encoding of communication input in and by the interlocutor), meaning that an interlocutor can read another interlocutor's thoughts *if and only if all* technological and subjective conditions are met—this certainly being Dubrovsky's main goal, as the following passage makes clear: "As I mentioned earlier, this kind of "thought reading," at least in relatively simple cases, is generally possible even at the current level of development of neuroscience … Far more opportunities become available when the subject has agreed to cooperate with researchers."[40] Further to this, we may also conclude that when *all* technological and subjective conditions are met, the meaning-producing transactions will be not just possible, but effectively doable and reliable—these constituting, respectively, a pragmatic moment of communicative interaction and a semantic moment of communicative completion.

The neurodynamic codes involved are structurally informed by basic components that have the special property of being a reflection of "external" (both subjective and objective) processes—i.e. the mirror neurons and mirror systems of the brain. Mirror neurons and systems are therefore the unifying function underlying processes of neurodynamic encoding and decoding. According to the Italian neurophysiologist Giacomo Rizzolatti (quoted by Dubrovsky), the mirror-reflect arch appears prior to any reflexive and linguistic neuro-motor action, and so makes possible a kind of immediate,

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40. Dubrovsky, "Does Brain Research Make," 23.

primary, pre-linguistic recognition and understanding of certain types of action performed by other individuals: "Thanks to our mirror systems, we are able 'to swiftly recognize certain types of actions' performed by others. This kind of understanding arises instantly, and it 'completely lacks any kind of reflexive, conceptual, or linguistic mediation.'"[41]

Nevertheless, these neurodynamic codes, according to Dubrovsky, can also be understood as a brain encoding of more complex processes, such as thinking, consciousness, and even subjectivity. Mirror neurons and systems are an always-prior encoding and cipher—a semantical encryption—of any form of subjective ideation, thought, action and complexity: " we know that any phenomenon of subjective reality whose content is transmitted to us in the form of a "natural" code initially exists as a neurodynamic code in an individual's brain."[42] For Dubrovsky, brain reading is neither reduced nor limited to neuro-motor processes linked to primary actions, such as body motion, or emotions such as joy, fear, erotic attraction, etc. Rather, its scope extends to the highly complex process of thought production, and what Dubrovsky calls "the phenomena of subjective reality," amongst which "one's own self"[43] should be counted as the most important and basic:

> One successful area of research developed throughout the past two decades is "brain reading," which we could also call "neurocryptology," because its purpose is to decipher the neurodynamic codes for various mental phenomena, including the phenomena of subjective reality.[44]

Actually, Dubrovsky defines his own endeavor as an effort at "deciphering the brain's codes for more complex mental phenomena."[45] In the same way, the achievements in brain and mind reading are seen by Dubrovsky as,

> a qualitatively new level of brain and mind research, which in the near future should result in major new results related to brain reading, deciphering the brain's codes for phenomena of subjective reality.[46]

41. Ibid., 22.
42. Ibid., 24.
43. "It is conceivable to establish them with the help of various visualization methods and to display the corresponding images, if not to use the resulting brain-computer interface for the purpose of self-improvement (medically or otherwise), including for one's own self." See Dubrovsky, "Does Brain Research Make," 25.
44. Ibid., 21.
45. Ibid.
46. Ibid., 27.

An especially complicated moment of Dubrovsky's thought, marked also by a certain conceptual ambiguity, arises when he deploys the notions of "natural" and "foreign" codes as standing in an opposition to brain-based neurodynamic codes. Initially, it looks as though Dubrovsky takes natural code to mean *just* the immediate, aesthetic perception of an external being in an empirical way: i.e. mainly visual and acoustic, but also potentially tactile. His reference to the perception of a tree would seem to support this hermeneutics:

> When, for example, I see a tree in front of my window, like every phenomenon of subjective reality I obtain it in the form of a "natural" code, directly: I experience the image of a tree while knowing nothing about its neurological carrier, without sensing it.[47]

The immediate apprehension of the tree's form, colors, etc., seems to constitute a natural encoding. This idea is reinforced, Dubrovsky states, by the fact that my natural encoding of the tree immediately becomes a "foreign code" to others, to the extent that "for anyone else, my image exists in the form of a 'foreign' code, a manifestation of the relative closedness of the individual's subjective world."[48] So initially, the main difference between natural and foreign codes is that the first are immediate, empirical, mental representations of external objects, while the latter imply a more complex, symbolic, semantic mediation of signs—i.e. a language.

Even so, a more focused reading of Dubrovsky's thought in this regard shows that the categories of natural and foreign codes are applied not to *the material nature* of the sign as such (in the sense of the immediate image vs. language), but rather to its *semantical accessibility*—as open/natural or closed/foreign. In other words, a code is natural insofar as it can be understood in an immediate and familiar way by another receptor: the deciphering/decoding and (re)encoding processes are part of an already known, familiar, natural system of signs. In Dubrovsky's words:

> In everyday life, these codes are external (verbal, written, "motor," semantic), and in most cases these are "natural" codes for us. These are codes whose information content is "open" to us, provided in what seems a direct manner. (Unlike "foreign" codes that require analysis of the structure of the information carrier and a special and sometimes highly complex decoding operation,

47. Ibid., 25.
48. Ibid.

which nonetheless results in the same thing: a transformation of the "foreign" code into a "natural" one.)[49]

According to this, a linguistic sign, a cultural symbol or action, or, indeed, any meaningful system, can be natural insofar as it is perceived as such—via an immediate, familiar and simple decoding/encoding process—by another individual. Even speech, as a highly complex performance of linguistic and mental operations, can be understood as "a natural decoder of my thoughts."[50] Therefore, according to Dubrovsky a sign or system of signs could be natural and foreign at the same time, depending upon its semantic relationship with the decoding interlocutor.

At this juncture, two main lines of criticism emerge in relation to Dubrovsky's utopia. The first has to do with the fact that a high percentage of human thought, and subjective processes generally, happens at an unconscious level, and only certain features of an object, certain thoughts, and certain emotional states, make it through the individual's subjectivity to become instances of "central cognitive content."[51] The second relates to the uniqueness of the human person, and the fact that all subjective processes are imprinted with something peculiar and unique to an individual's personhood. Dubrovsky is aware of such criticism and offers a response to it himself.

Concerning the first point, it is clear for Dubrovsky that in what he calls the "present moment" of an individual's holistic process of thinking, there will always be gaps determined by the internal dynamic of thought as a multilayered process

"in motion," influenced by tiny "leaps" of attention, including not only sensory images (such as visual representations), weakly verbalized views, inferences, and assessments, but also an emotional background, a state of indecision, doubt, or sudden conviction that seems to spring from nowhere.[52]

To this must be added the complex relationship between knowledge, perception, and interest or motivation for brain reading, which may determine the accuracy of perception and degree of commitment of an individual as regards establishing clear correspondences between neurodynamic codes

49. Ibid.
50. Ibid.
51. Ibid., 25.
52. Ibid., 23.

and their linguistic and mental output. Dubrovsky recognizes also that the semantic and personal context of a certain perception might remain in the shadows, and therefore may not be counted as relevant data in the context of the thought reading process itself: "All this substantially impoverishes our 'mind reading.'"[53] Despite this recognition, Dubrovsky remains essentially optimistic, and states that in many cases a significant amount of relevant information can be obtained. He also suggests that in order to expand the horizon of thought reading, scientists need more effective methods than the ones currently available to modern neuroscience—though it is not clear from the passage in question whether this is intended to refer to technological resources as well.[54]

With regard to the second issue, Dubrovsky states that although the importance of this research and its successes have been recognized, there are still some authors who doubt whether a true reading of another individual's thoughts on the basis of brain indicators is possible, in that each person is unique, with a distinct inner world and a singular biography that are bound to shape their subjective experience differently from one case to the next. "After all," he continues, "even a single individual's reflections about the same subject at different times do not coincide with one another in meaning, motivation, or focus of attention."[55]

Yet in Dubrovsky's world, with its clear dialectical-materialist background, a generic homogeneity overrides and determines individuals" uniqueness, to the point where specific processes can only be properly explained via a systematic understanding of general regularities. The universality of natural laws sets a strict limit to the uniqueness and peculiarity of individual entities. In Dubrovsky's words:

> Experience has shown that our individual uniqueness does not prevent us from "reading" and understanding one another's thoughts in a number of cases, because there is nothing absolutely unique in this world.[56]

Merab Mamardashvili's Historico-Transcendental Anthropology, and the Impossibility of a Technological Solution

Mamardashvili's historico-transcendental anthropology represents one of the utmost syntheses of modern humanism. In it, Descartes" meta-historical,

53. Ibid., 26.
54. Ibid.
55. Ibid.
56. Ibid.

subjective essentialism and Hegel's historical dialectics merge into a phe-
nomenology of consciousness that understands history as the organic *filum*
of humankind, while remaining faithful to the Gospel-principle as the
source of its ontological richness. This anthropology rests on four main
premises:

(1) "The first element is the Graeco-Roman world, specifically a social or
civil idea, or if you wish the belief that only a concrete social form,
only a concrete community, can realize in life, on earth, an infinite
ideal: a finite form can carry the infinite. This is expressed by an-
other fundamental Roman idea, which is the rule of law."[57] This is
what Mamardashvili called the "internal principle" and the "power
of language."

(2) "The second element is the Gospel. It is the idea that there is some-
thing inside the human being that could be termed the internal voice
or word, and it is enough to hear this voice, this word, and follow
it, so that God may give help along the way. It is necessary to walk
without external help, following the internal voice, without count-
ing on guarantees, and with all of that appears the disruptive and
worrisome element, the element that creates history." Mamardashvili
refers here to the law as an "external element."

(3) Then comes the idea that history is the organ of humanity: being hu-
man is a constant effort in history, as history itself—i.e. the complex
phenomenology of becoming human. "A human does not exist, but
becomes."

(4) Finally, the fundamental calling of human being is to exist as an
integral whole. This natural passion is fulfilled only in the realm of
language—i.e. in the community of meaning that is opened up to
humanity within the epiphanic chronotope of language: "One doesn't
accomplish this except in the realm of language, in an articulated
space, and this is our task."[58]

In Mamardashvili, the *humanness* of the human appears to be a Tran-
scendental in history as the vital organ of this becoming human that can
be fulfilled only in the realm of language. This ontological richness cannot
be reduced in its entirety to neuro-dynamical codes and brain-function
structures, as human personhood is being interpreted here as an open
space in which the Infinite is itself incarnated in history as the organ of
human fulfillment, granting the emergence of a world of meaning within

57. Mamardashvili, "European Responsibility."
58. Ibid.

the articulated space of language. It is in this context that Mamardashvili speaks of the Gospel as the second element composing the Renaissance—or, in his words, "the foundation or the continuum of our modernity" and "history as organ of life."[59]

In his article "The Problem of Consciousness and the Philosopher's Calling," Mamardashvili develops his notion of consciousness as, first of all, the experience of another consciousness that, within the undifferentiated continuum of the everyday world, shows up as something unfamiliar: "Consequently, the way in which thinking is understood in the European tradition already contains—from the start, as it were—consciousness of the other. This other may be another person, another point of view, another perspective—in general, another world or another universe. All these things belong to the same series and are a decoding of the word "other." Another reality!"[60] Therefore, in its very essence, consciousness is the product of human trans-subjectivity and not a brain-based function. Its essential content is spiritual—in the sense of being historical, linguistic, and transcendental—and not socio-physiological. Besides, beyond its social dimension as relational awareness of the other, consciousness is also self-consciousness. Moreover, in its being a self-consciousness, the phenomenological richness of subjectivity as mediated interiority is revealed, and with this the radical *experience* of *myself* as a spiritual being is acquired:

And so we have the following fact—one fundamental to the construction of a philosophical apparatus. Namely, the fact that consciousness is the quality of being marked out or distinguished. And this quality has another very important meaning from the point of view of consciousness as testimony. This testimonial consciousness contains, first, something that I am aware of or think or feel. And, second: I think that I think. Or: I feel that I feel. Well, let's suppose that I feel that I love. But in principle this may not coincide with the fact that I really love. It is one thing for me "to [really] love" and quite another for me "to feel that I love." Or for me "to [really] think" and "to think that I think." These are fundamentally different things, and no transformation, no assumption, no reasoning can eliminate this difference.[61]

It is clear, then, that in consciousness the individual and social dimensions of the human converge in a way that cannot be reduced to neurodynamic

59. Ibid.

60. Merab Mamardashvili, "The Problem of Consciousness and the Philosopher's Calling," *Russian Studies in Philosophy* 49, no. 2 (2014)**,** doi:10.2753/RSP1061-1967490201.

61. Ibid., 12.

processes, even when it cannot be denied that these material processes are phenomenally related to the twofold experience of self-consciousness. This radicality, and uncontested reality of consciousness, and its ontic-ontological autonomy from neuro-physiological processes, constitute a ground-breaking difference between Mamardashvili's and Dubrovsky's anthropology. It is a difference that deserves to be emphasized, because in Mamardashvili's philosophy of consciousness, the cybernetic encoding and artificial replication of thought—and therefore also of consciousness—are absolutely impossible. History is the organ of human being. In it, human self-consciousness, construed as a spiritual reality, as well as the social interconnectedness through a language that therefore counts as essential, take place. Mamardashvili's historico-transcendental ontology is tethered to the "traditional" paradigm of onto-reality as a non-synthetic, pre-virtual, "natural" environment. He envisages human fulfilment in history via the open interconnectedness (the *agora*) granted by a language essentially rooted in the experience of God deep in the human heart.

Uldis Tirons, editor of the intellectual journal *Rigas Laiks* (*The Riga Times*), points to two philosophical moments in Mamardashvili which can help us understand the irreconcilable conflict between his anthropological and ontological convictions on the one hand, and Dubrovsky's technological solution on the other. These moments are: (1) the call to an essential ἀκοῦσαι (a careful hearing of the interior word), and (2) the call to Meaning.

1. The call to an essential ἀκοῦσαι (a careful hearing of the interior word) and the preeminence of "natural" unconcealment of Being over the artificial (technologico-scientific) appropriation of beings.

Referring to one of his interactions with Mamardashvili, Tirons recalls how:

In the mid-1980s, I asked Merab to write a piece on Kant—his Kantian lectures hadn't been published at the time. The deadline was fast approaching and I still hadn't heard from him. I called him. It was morning, and I was sitting in the editorial office on Aspazijas Boulevard; I think there was a time difference of several hours between us. To my question about how things were with Kant, Merab replied: "Oh, well, nothing special—it's warm and birds are singing outside."[62]

62. Uldis Tirons, "I come to you from my solitude," *Rigas Laiks*, 2006, https://www.eurozine.com/i-come-to-you-from-my-solitude/

The essential is shown in the inner word that speaks directly to the heart and shapes our consciousness of historical being. The human being exists in a relationship to himself or herself just insofar as he or she exists in a relationship to others. Complementing his Cartesian essentialism with a Hegelian-Marxian dialectic perspective, Mamardashvili emphasizes the fact that history is the human being's existential organ: i.e. the locus in which he or she experiences their most proper way of being. This historical interrelationship is primarily attested to in thinking. And, certainly, it is in thinking that existence arrives at its ontological dimension, coming to constitute existential self-consciousness. In Mamardashvili's words: "Thinking is my way of being or my way of being in a way I wouldn't be if I didn't think what I do think. Thinking of existence is a mode of existence of the thinker."[63] Thinking interconnectedness is the essential way of human *propriation*. So, only in the free space of language and community can man be genuinely existential, and only then can a genuine, creative, and guiding thought appear.

2.   The call to Meaning

Tirons continues his testimonial narration in a way that lets us see Mamardashvili's commitment to Truth in nature (as *aisthesis*) and existential thinking (as *gnosis*):

> When I took the liberty of asking Iza [Merab's sister] whether there was any sense to go on living if there was no Merab, she said: "You know, I just don't know ... What sense could there be? Merab wanted to live so much. He wanted to live. He loved the sun, light, sunrise ... In the morning I tiptoed into his room to draw the curtains because the sun was beginning to enter ... But he said: no, leave, go away, you are in the way, leave me the sun."[64]

The sun and its natural light let things appear and show themselves. By showing themselves in the light, things acquire a special relevance in relation to the human being's existential self-consciousness: they become meaningful. In the clearing of Meaning, there is an unconcealment not just of the being of beings, of their actual configuration in time, but also of their essential destination, their eschatological intentionality and their most proper way of being. In the words of the philosopher himself:

63. Ibid.
64. Ibid.

Goethe said that when approaching Kant one was overwhelmed by a feeling of coming out from a dark forest into a sunlit meadow. The space in question is a sort of "understanding place," a place in and from which something can be seen. In this lucid space, the light is so bright that you begin to understand and yet, having understood, you still understand nothing—in other words, you can't explain what you have understood.[65]

According to Mamardashvili, the human being fulfills its humanity in the living *agora* of intersubjective dialogue and action. The moment of human singularity takes place in the "incarnation" of the Infinite within historically, socially interconnected persons, not in the technology-mediated, materially replicated individual as envisaged by Dubrovsky.

Mamardashvili, who described himself as a neo-Cartesian thinker and was dubbed by J.-P. Vernant "the Georgian Socrates,"[66] inscribes himself into the paradigm of onto-reality. In his worldview, therefore, happiness remains essentially linked to the experience of Meaning, and immortality is a God-granted, ontological attribute to be realized via the incorporation of Transcendence into the intersubjective temporality of history. Since history is the organ of humanity, thinking takes place primarily in the relational moment of social interaction. It is related to the brain's activities only as a secondary, mainly operational process. At this point, also, the Georgian philosopher distances himself from Marxist anthropology and its dialectical-materialist platform, and proclaims the autonomy of spirit in an essentially historico-transcendental turn.

Conclusions

In cyberculture, cyberbeing appears as the new and ultimate destination of humanity. As an onto-genetic matrix—i.e. an ontological horizon for human beings—cyberbeing creates a bio-digital creature in its own image and likeness. Bearing the mark of its origin, this cyberperson—just like the mythical demigods, but in a different way—is concurrently half-human and half-cyborg. Cyberbeing constitutes the highest form of avatar-complexity, in which the discernment between human (onto-reality) and cyborg (cyber-reality) becomes impossible and meaningless. But cyberbeing also appears as a form of *alētheia.* While, over the course of Western modernity, the human essence as presence swings between different degrees of rationalism and nihilism, in cyberbeing, as a post-human ontology, the essence of the human paradoxically reappears and clears as never before in its

65. Ibid.
66. Ibid.

most immediate and pure disclosedness. The phenomenological structure of cyberbeing is in itself a replication of human being's formal Transcendentals in the complete reconciliation of inner-worldliness and "being to Transcendence."

In the Transhuman Declaration and the Cybernetic Manifesto, as well as in Dubrovsky's evolutionary project, we encounter three basic underlying and dominant ideas that can seem particularly illegitimate in the context of postmodern, post-structuralist deconstructivism and the linguistic turn: that human life must have a meaning, that the experience of meaning is only achievable in a factual—as opposed to a symbolic—immortality, and that immortality only makes sense as an everlasting state of self-consciousness and happiness. It is easy to see that the "old" triad of immortality, meaning, and happiness that informed the entirety of the Ancient Graeco-Roman and Judeo-Christian traditions—albeit, certainly, in quite different ways—has been rediscovered here within the "new" ideals of cyberbeing. In this sense, cyberbeing opens up a theological horizon of *religatio* for humanity: a horizon of synthesis of world-and-Transcendence. Interestingly enough, the cyberworld, in its "evolutionary" version as eschatological, redemptive promise, *pretends to be* as real, beautiful, and good as the transcendental attributes of Being in medieval metaphysics. Even so, the ontological matrix of cyberbeing is not that of onto-reality intersecting with virtuality. In other words, while onto-real transcendental attributes of Being open up for humanity a path towards the actual convergence of essence and existence, cyberbeing opens up a horizon of virtuality defined by an infinite asymptotic relationship between essence and actuality. In other words, the virtual nature of cyberbeing will always be at odds with onto-reality as the original ontological matrix of the human being's way of being as existence.

Certainly, in the onto-real theologal experience of being, Truth occurs only in the neighborhood of Being in which *alētheia* clears for man its ultimate self-propriation and definite dwelling place. For this reason, while Mamardashvili's transcendental anthropology offers the possibility of a real synthesis between the Absolute and the finite human being in the organ of history as the most proper dwelling place of man, Dubrovsky's project seems doomed to failure when it comes to replicating what is the essence of the bio-moment in his bio-digital hybrid: i.e. the self-conscious Self or some instance of existent personhood. Dubrovsky represents the return of onto-theology in the form of a self-sufficient scientific rationality that reduces the mystery of self-consciousness and existence to a complex neuro-social process encoded in the neurodynamic configurations of the

brain. In such "techno-metaphysical" thinking, science exhibits what is surely the real essence of traditional metaphysics, inasmuch as this sort of scientific rationality inherits the right both to debunk a "traditional" ontology based on the principle of onto-reality and to recall a speculative discourse of "pure thought" as a legitimate source of epistemological prognoses. In other words, in the context of Dubrovsky's scientific rhetoric, thought recovers its prophetic capacity, but only under the mantle of scientific formulations. As with Stephen Hawking, scientific post-philosophical thinking lays the foundations of its own reality-modelling in a way similar to traditional metaphysical speculative thinking, displaying the very same tautological conundrums and internal contradictions as metaphysics itself.

It is certainly clearly the case that Dubrovsky's utopia channels the complex bio-technological interaction of an era of transhumanism, together with the formation of a kind of eschatology in which the essence of cybertechnology turns into the ipseity of the human. What is witnessed here is not the displacement of the sacred, but the reconstruction of a human-divine *perichoresis* in the phenomenological context of fictional transcendences. Certainly, in Dubrovsky's thought, cyber-culture need not necessarily amount to either the opposite of the sacred or its absolute oblivion—providing that the sacred designates the affirmation of human immortality, in the sense of the eschatological destination of human existence as "Being-towards-Transcendence." Something is clear in Dubrovsky's and Conterio's ontological anthropology: a human self-created immortality need not entail the mediation of a demiurge or a transcendent God. While the affirmation of human will to immortality as a legitimate aspiration that should not dismissed or reduced to psychologistic or dialectical-materialist theories is one of the most important assets in Dubrovsky's primary ontology, his materialist vein emerges once again, and exposes itself in his godless, self-sufficient anthropology. His thought and utopia reveal a cyber-appropriation and interpretation of the fundamental Transcendentals of human existence within the horizon opened by unijectivity and cyber-being. Thus, in effect, Dubrovsky offers us a fictional-transcendental solution to the problem of existence and death, which is determined by the categories of cyberbeing.

In a different way, in Mamardashvili's ontology, the Infinite and finite being are opened up and granted to each other by language in history as the organ of man. In this sense, I understand it to be a historico-transcendental ontology, and by contrast, one of the most important features of Dubrovsky's metaphysical thinking is the way in which, within it, human being's onto-existential Transcendentals are reproduced and recovered for the sake of a scientific modelling of reality in open opposition to

the positivistic and data-centered character of scientism. In Dubrovsky's thought, human essence becomes unconcealed. Yet, under the mantle of a cybernetic fictional transcendence, onto-real immortality is replaced with a cyber-fictional, techno-granted perpetuation. Thus, the ontological human-divine *perichoresis* becomes a bio-digital interface, involving a *minus*-subjectivity and a cybernetic automaton and having the aim of creating a post-human avatar along with its self-projected and prophesized cyber-resurrection.

Both Mamardashvili and Dubrovsky produce a metaphysics that avoids talking about God, yet for very different reasons. For Dubrovsky, God is an unnecessary commodity that, besides being a no-thing in the sense of a non-objectivity, by definition cannot be broken down into neurodynamic moments. Mamardashvili, on his part, focuses on the unconcealment of Meaning in history through language, subject to the proviso that it be a language opened up to the "Gospel principle." Yet God himself, as clearing of the clear and source of Meaning, cannot be grasped, as such, in the articulated structure of language. God is, essentially, the Absolute Other. He cannot be thought of onto-theologically or scientifically.[67] God is not, essentially, a matter of rational calculating, cybernetic or technologico-scientific thinking. This form of metaphysical thinking reaches its peak in Hegel's *Science of Logic*, because, in Heidegger's words, "here truth means the certainty of absolute knowledge."[68] While, for Dubrovsky, history is just the setting in which the brain and its neurodynamic activity encode objectivity and make way for the appearance of subjectivity as a physiologico-linguistico-social phenomenon, for Mamardashvili, history is essentially the organ of becoming human: i.e. the place in which humans hear from and speak to each other through meaningful language:

A person without language is a barbarian. That at least was how the Greeks defined a barbarian: someone without language. Obviously the Persians and others around the Greeks spoke a language, but by language, the Greeks understood an articulated space of presence of all that one may feel, want, and think. This emphatic back and forth, this snowballing of ideas in the public square: this is what language is. How can we become aware of the fact that the human being alone is naked before the world, not even

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67. In this sense, for instance, both St. Thomas of Aquinas, with his *quinque viae*, and Stephen Hawking, with his theory of the spontaneous and capricious self-creation of the universe/pluriverse, seem to fail in their respective onto-theological attempts—the former seeking to prove, the latter to deny, God's existence.

68. Martin Heidegger, "The End of Philosophy and the Task of Thinking," *Basic Writings*, 447.

human until the surrounding space is full of language in the living public square? These articulations mediate the nearly-powerless individual's effort before the complexity of the human, and permit those speaking to formulate thoughts of their own, and to think what they are thinking.[69]

Cyberbeing is a new creation, in which bio-digital automation is present everywhere in all things, and personal perpetuity is achieved via a bio-technological transmigration from brain-based to software-based subjectivity. In this sense, cyberbeing is a new ontology, and also a new eschatology. We might say that here, the ultimate destination of humankind as a bio-digital hybrid is revealed: a humankind whose subjectivity is determined by the pure and perfect "exteriority" of the machine. We are moving from a modern subjectivity to a post-industrial cyber-digital unijectivity. According to Dubrovsky, the avatar, that originally controlled self-replication of bio-being in cyber-reality, will turn into the techno-functional substrate of human subjectivity, of the human *self*, and therefore also of the glorious and perpetual human body, in a cyber-resurrection. In this sense, his techno-metaphysics illuminates a chronotope of our homeless world: the human being essentially seeking immortality and onto-transcendence. Humanity exists in such a way that "Being-in-the-world" is already a form of being transcendent, and transcendence appears as a radical un-concealment of Being at the center of man's worldliness. Thus, death discloses for humans not only the closedness of their inner-worldly horizon, but also the possibility of self-recognition as *ek-stasis*: i.e. as an instance of "Being-in-the-world as transcendence toward death." "In the world and towards death," the human being envisages his or her own call to perpetuity, not because this perpetuity is an essential ontological privation. On the contrary, it happens because perpetuity is the only way through which he or she can experience himself or herself as properly authentic—as corresponding to *self-propriation*. Precisely because ""world" is the clearing of Being into which man stands out on the basis of his thrown essence,"[70] the human being's self-relation may, as a subjectivity, vary from epoch to epoch and can, consequently, be understood in many different ways. Subjectivity emerges in history as history, doing so within the horizon of meaning opened up in the clearing of Being that always precedes humanity's "Being-in-the-world" and every form of his or her "Being-with." This is so in the following sense: "Man is never first and foremost man on the hither side of the world, as a "subject," whether this is taken as "I" or "We." Nor is he ever simply a mere subject

69. Mamardashvili, "European Responsibility."

70. Heidegger, "Letter on Humanism," 252.

which always simultaneously is related to objects, so that his essence lies in the subject-object relation. Rather, before all this, man in his essence is *ek-sistent* into the openness of Being, into the open region that clears the "between" within which a "relation" of subject to object can properly 'be.'"[71]

Dubrovsky has made a decisive contribution to the development of a new form of subjectivity resulting from the clearing of Being that occurs within the horizon of cybertechnology as determined by cyberbeing. He envisages a peculiar form of subject-object and subject-subject relationship within the categorial *filum* of cyber-reality. As an epoch-defining reality, cyberculture and cyberbeing appear as cleared by Being for human beings in history, and therefore as a "destining of revealing"[72] and a *Geschick*: i.e. a destiny humankind must cope with, and that they cannot just avoid or simply "get rid of." At the same time, though, the question here—which is also a questioning of Heidegger's ontology and ontological anthropology—is whether there is a maximally radical way of clearing on the part of Being, within which human beings can exist in fulfillment of their onto-existential possibilities. Yet even if a God-based onto-reality and a Divine-human *perichoresis*, as personal deification in the image and likeness of Logos-Christ, were to nevertheless somehow count as privileged over and against cyberbeing, bio-digital interfacing, shallowness models, fictional transcendences, body-decarnation, and ethical-ontological decenteredness, Dubrovsky's super-human avatar and its world of cyber-singularity would still represent an essential disclosure of the human way of being in history, and the most radical kind of estrangement through which this unconcealment can possibly occur.

Cyberbeing, as a new form of ontology, calls up human existence in full and exposes it to the openness of social mediation. This cannot occur in any other fashion, as the human being exists in a way that is such that in each case he or she experiences Being as perpetuity (even as a perpetual "nothing" and ceaseless change...), time as intentional succession, personhood as a self-coherent identity, and life as an ecstatic openness to Transcendence, not just a bio-social event. In both Dubrovsky's and Mamardashvili's anthropology, human life's completion is seen as a reconciliation—a dialectical synthesis—of the Absolute and the individual, as well as of temporality and perpetuity. However, while for Mamardashvili the organ of human ontological completion is history mediated through

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71. Heidegger, *Being and Time*, 95.

72. "Man is endangered by destining. The destining of revealing is as such, in every one of its modes, and therefore necessarily, *danger*." Heidegger, *Basic Writings*, 331, note 8.

the meaningful language of an open *agora*, in Dubrovsky's view a complete form of humanness can only happen through the organ of human being that is scientific-technological rationality, in a mixed interaction of mechanical and cyber-digital technology.

For the Georgian philosopher, the only form of technology that can properly mediate between humanity's inner-worldliness and openness to Transcendence is the Ancient *technē* of rhetoric, pursued in the living agora of an open community. Cyberbeing as destination and unconcealment is not something strange to this: on the contrary, in the essence of cyberbeing as a destination, the onto-formal categories of humanity's being also undergo clearing, these being those of perpetuity, intentionality, self-identity, and openness to Transcendence. However, Dubrovsky's project of a bio-digital interface as techno-replication is a threshold that leads to a transhuman construction based on the oblivion of onto-reality and the reduction of the process of thinking to a highly-complex system of ultimately mechanical associations, lacking any existential dimension. In Dubrovsky's avatar, human beings" formal Transcendentals appear alienated under the mantle of fictional transcendences, as a virtual antithesis to onto-reality. This is an avatar whose ontic prospects rest on a belief in a technological singularity, and which will always be a transhuman Leviathan in the sense of a hybrid monster feeding on Adam's ruins but deprived of authentic existence, responsibility, and language. Mamardashvili's ontology, on the other hand, proves to be essentially incompatible with such a moment of technological singularity—i.e. with the creation of a transhuman, bio-digital avatar, as envisioned and prophesied by Dubrovsky. By contrast, his "homme" and its historical completion, though a "très long effort,"[73] stands both as a moral imperative and an ontological possibility.

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73. Quoted in French by A. Padgett. See A. Padgett, "Dasein and the Philosopher: Responsibility in Heidegger and Mamardashvili," *Facta Universitatis*, Series: Philosophy, Sociology Psychology, pp. 1–21, vol. 6, No. 1, 2007, 18. ś

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