## CRITICAL POINTS ON ANTHROPOLOGICAL IDEAS IN YUVAL NOAH HARARI'S WRITINGS

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**SOMMARIO:** *Punti critici sulle idee antropologiche negli scritti di Yuval Noah Harari.* L'articolo si propone di opporre critiche specifiche, di natura prevalentemente filosofica, sulle idee antropologiche degli scritti del famoso storico e pensatore contemporaneo, Yuval Noah Harari, dopo un tentativo analitico multidimensionale di comprendere la sua popolarità e l'enorme successo mediatico del suo primo libro *Sapiens: A Brief History of Humankind*, diventato un bestseller internazionale e attraversato da una serie d'influenze di idee classiche. Andando, soprattutto, sulla linea dell'intertestualità, questa lettura critica delle concezioni di Harari circa l'essenza dell'essere umano si basa sull'esistenza di incongruenze categoriche negli approcci bio-psico-sociali, raddoppiate dall'assolutizzazione dell'uso del criterio scientifico (materialista) nella spiegazione dell'umano, suscettibili di creare una serie di vulnerabilità epistemologiche nella descrizione della natura ontologica immanente del *sapiens*.

**Parole chiave:** sapiens, storia, antropologico, umano, biologico, materialistico, anima, epistemologico, ontologico, determinismo.

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**REZUMAT:** *Puncte critice privind ideile antropologice din scrierile lui Yuval Noah Harari.* Articolul își propune realizarea unor critici punctuale, de factură preponderent filosofică, privind ideile antropologice din scrierile celebrului istoric și gânditor contemporan Yuval Noah Harari, după o încercare analitică pluridimensională de înțelegere a popularității sale și a uriașului succes mediatic al primei sale cărți Sapiens: A Brief History of Humankind, devenită *bestseller* internațional, străbătută de o serie de influxuri ideatice clasice. Mergând, mai ales, pe filiera intertextualității, această lectură critică a concepțiilor harariene despre *esența* identitară a ființei umane se sprijină pe existența unor inconsecvențe categoriale în abordările bio-psiho-sociale, dublate de absolutizarea utilizării criteriului științific (materialist) în explicarea *umanului*, susceptibile de a crea serioase vulnerabilități epistemologice în descrierea naturii ontologice imanente a lui *sapiens*.

**Cuvinte-cheie**: sapiens, istorie, antropologic, uman, biologic, materialist, suflet, epistemologic, ontologic, determinism.

**Motto**: "Biology sets the basic parameters for the behaviour and capacities of *Homo Sapiens*" (Y.N. Harari, *Sapiens*)<sup>2</sup>.

#### 1.) Introductory considerations

Even after the first pages of reading, for any (honest) reader of the books of Yuval Noah Harari, doctor in history at the Oxford University (Jesus College), the following qualities become evident: the erudition, clarity and conciseness of expression, the extraordinary analytical intellectual ability and descriptive and argumentative mastery. Along with these, the style of his works, ingenious, even unusual for the epistemological perspective specific to socio-human studies, is particularly noteworthy. Practically, in addition to the (typologically classical) knowledge of political, social and cultural history, archeology, anthropology, sociology and economics, Harari also makes massive use of a series of pieces of

<sup>&</sup>lt;sup>2</sup> Y.N. Harari, Sapiens. A Brief History of Humankind, London 2015, 43.

information and reasoning in the field of zoology, biology, neuroscience or computer science, through which combination ingeniously tries a *scientific* reconstruction – in the naturalistic sense – of human history, of *Homo sapiens*, but also an x-ray of the contemporary world3 and a forecast of the future of human society<sup>4</sup>, dominated by increasingly sophisticated electronic algorithms. Israeli historian "is so committed to a scientific view of human history that he never seems to question whether a method invented to understand and master nature is really suited to understanding fully the nature of man himself", and whether "man is the same kind of object as many of the others that science studies"<sup>5</sup>.

Undoubtedly, *Sapiens: A Brief History of Humankind* (2014), first published in Hebrew in 2011 (after four publishers rejected it), translated into over 50 languages and sold in over 15 million copies<sup>6</sup>, is currently Harari's most popular book, which turned him from an obscure history lecturer at the Hebrew University of Jerusalem into a world-renowned "star". *Sapiens* has gained a lot of popularity in the media by allocating a special YouTube channel and debating it with futurists from Google and Singularity University of Silicon Valley, and including it on the list of essential writings recommended by Barack Obama, Mark Zuckerberg, and Bill Gates (he included it in the top ten favorite books). Thus, in April 2020, *Sapiens* was ranked 2nd in the top non-fiction bestsellers of *The New York Times*<sup>7</sup>, where it continued to appear for 150 weeks, ranging from position 1 to 3.

Some similarities to *Sapiens*' interdisciplinary analytical style, as well as some cognitive patterns and themes addressed in the first two parts of the book, the Cognitive Revolution and the Agricultural Revolution, can be identified in another internationally successful book, *Guns, Germs, and Steel: The Fates of* 

<sup>&</sup>lt;sup>3</sup> Y.N. Harari, 21 Lessons for the 21<sup>st</sup> Century, London 2019.

<sup>&</sup>lt;sup>4</sup> Y.N. Harari, *Homo Deus. A Brief History of Tommorow*, London 2017. Despite the subtitle, this book contains more data of classical descriptive and analytical history than the bestseller *Sapiens* that made the Israeli author famous.

<sup>&</sup>lt;sup>5</sup> J. Sexton, A Reductionist History of Humankind, The New Atlantis. A Journal of Technology & Society, 47, 2015, 109-120, 110.

<sup>&</sup>lt;sup>6</sup> In all, Y.N. Harari's three books were sold over in 27 million copies (25.06.2020), https://www.ynharari.com/about/

<sup>&</sup>lt;sup>7</sup> (25.06.2020), https://www.nytimes.com/books/best-sellers/2020/04/05/paperback-nonfiction/

Human Societies (1997), by UCLA professor Jared Diamond, covering the last 13,000 years – a much shorter period of time than Harari's approach of the theme. In fact, at the end of the book Sapiens, the Israeli author personally and especially thanks Diamond, "from whom I learned to see the big picture", and in a radio debate in 2015 with the host of the well-known show Ideas from the Canadian station CBC radio host, Paul Kennedy, Harari acknowledged that the Los Angeles professor's work inspired him the most in developing his own book, showing him that it was possible to "ask very big questions and answer them scientifically". This epistemological requirement was understood by Harari in the positivist sense of modern science - an essential component of his image of the physical and social world - which is why he paid special attention to naturalistic thinking, used extensively in the analysis of human prehistoric<sup>9</sup> evolution. Harari's interest in this early period in the history of Homo sapiens, corresponding to a huge cultural gap, also took into account Diamond's observation that "the period before the appearance of writing about 3000 years BC - it is given less attention", and "most books that aim to present the history of the world in detail are in fact chronicles of Eurasian and North African literate societies"10.

<sup>&</sup>lt;sup>8</sup> IDEAS with Paul Kennedy, January 12, 2015, CBC (26.06.2020) https://www.cbc.ca/radio/ ideas/sapiens-1.2921626

<sup>&</sup>lt;sup>9</sup> The term is avoided by Harari, "because it wrongly implies that even before the Cognitive Revolution, humans were a category of their own". Harari, *Sapiens* 42.

<sup>&</sup>lt;sup>10</sup> J. Diamond, Arme, virusuri si oțel. Soarta societăților umane, Bucharest 2019, 11. Apart from this work with which he shares some things in common, Harari's conception of the fundamental significance of revolutions in human history, including radical transformations of living conditions with the help of genetic engineering and technology, but also the interdisciplinary method of socio-historical approaches that privilege knowledge in the field of natural sciences can be partially overlapped with the theses and method of another famous book, published in 1980: Alvin Toffler, *The Third Wave*. Unlike Harari, who introduced the Neolithic Cognitive Revolution (placed 70,000 years ago) among the major historical stages in human evolution and stopps at the Scientific Revolution of the sixteenth and seventeenth centuries, the American futurologist considers the Agricultural Revolution (The First Wave) and the Industrial Revolution (The Second Wave), as well as the emerging Third Wave: "a phenomenon as profound as the The First Wave of change discovered ten thousand years ago by the invention of agriculture or as The Second Wave of change initiated by the Industrial Revolution and who

# 2.) Harari's popularity and that of the book *Sapiens* – between ingenuity, ideational reiterations, philosophical ignorance and "*epistemological concupsicence*"<sup>11</sup>

From the very beginning, through its very biological title Sapiens, Harari's book "is intended to give the impression of a work of hard-nosed science in the Darwinian tradition"<sup>12</sup>, in full harmony with the dominant positivist and materialist thinking of Western intellectual circles, as well as the high degree of secularization of the societies in this part of the world. In a review in *The New York Times*, American Indian scientist Siddhartha Mukherjee – the author of another book that has since become a scientific bestseller: *The Gene: An Intimate History*<sup>13</sup> - described *Sapiens: A Brief History of Humankind* as "an attempt to write the genetic, anthropological, cultural and epistemological history of humans over the last 100,000-odd years"<sup>14</sup>, under the almost exclusive influence of principles and methods in the field of natural sciences. For Harari, history is "the next stage in a continuum of physics to chemistry to biology", and "Sapiens are subject to the same physical forces, chemical reactions and natural-selection

shook the earth; we are the children of the next transformation: The Third Wave". A. Toffler, *Al Treilea Val*, Bucharest 1996, 11. However, even if Toffler predicted that following the discovery of DNA we are on the verge of becoming "*the designers of evolution*" (Toffler, *Al Treilea Val 277*), his intuition was far from Harari's predictions of the very ontological transformation of human beings, "self-made gods with only the law of physics to keep us company": "through biological engineering, cyborg engineering or the engineering of inorganic life". Harari, *Sapiens* 466, 448.

<sup>&</sup>lt;sup>11</sup> This expression was first formulated by the German Jesuit theologian Karl Rahner. Cf. K. Rahner, Glaubensbegrundung heute, in: *Schriften zur Theologie XII, Theologie aus Erfahrung des Geistes*, Benziger 1975, 21 and M. Taloş SJ, Cum sa mă orientez într-o lume dominată de *concupiscența epistemiologică?, Studii tomiste* 6, 2006, 67-74.

<sup>&</sup>lt;sup>12</sup> C.R. Hallpike, A Response to Yuval Harari's Sapiens: A Brief History of Humankind (26.06.2020), New EnglishReview, 12, 2017. https://www.newenglishreview.org/C\_R\_Hallpike/A\_Response\_to\_ Yuval\_Harari%27s\_%27Sapiens:\_A\_Brief\_History\_of\_Humankind%27/

<sup>&</sup>lt;sup>13</sup> Siddhartha Mukherjee, *Gena. O istorie fascinantă*, București 2018.

<sup>&</sup>lt;sup>14</sup> Siddhartha Mukherjee, The Future of Humans? One Forecaster Call for Obsolescence (27.06.2020), https://www.nytimes.com/2017/03/13/books/review/yuval-noah-harari-homo-deus.html

processes that govern all living beings"15, so that, for the Israeli author, the true method of studying the human species - viewed individually and collectively and the basic epistemological assumptions cannot be other than those specific to biology, reducible, in turn, (hypothetically), to physics and chemistry. This materialist reductionism is metaphorically synthesized in the question "how long can we mantain the wall separating the departament of biology from the departaments of law and political science"16, which shows that the sociohuman sciences - and therefore history - is only an intermediate methodologicalcognitive stage of transition to natural sciences, comparable to the psychophysical parallelism in philosophy mind. In another order of ideas, as in the case of this philosophical paradigm "there is almost no difference between psychic and somatic, but only between theoretical systems related to the knowledge of human reality, which is unique ontologically"17, also at the macrosocial level, the same ontological unity of bio-psycho-social reality subsists, while only its scientific methods of investigation differ (history, biology, economics, sociology, psychology, etc.), in respect of which Harari postulates the possibility of unification (by reducing them to natural sciences) in the future. "The life sciences have come to see organisms as biochemical algorithms", and because "exactly the same mathematical laws apply to both biochemical and electronic algorithms"<sup>18</sup>, in the future the latter will process the huge amount of data to provide knowledge - says the Israeli author in Homo deus.

Contrary to the classical meaning of history<sup>19</sup>, which treats the temporal evolution of political, social and cultural phenomena as a product of autonomous

<sup>&</sup>lt;sup>15</sup> Harari, *Sapiens* 445.

<sup>&</sup>lt;sup>16</sup> Harari, Sapiens 201.

<sup>&</sup>lt;sup>17</sup> Bălănean, Despre adicții și patimi 27.

<sup>&</sup>lt;sup>18</sup> Harari, *Homo deus* 428. Together with the founder of cybernetics, Norbert Wiener, we hope that "the fight of the future will be an increasingly fierce fight against the limitations of human intelligence, and not a comfortable hammock in which we can relax to be served by robot slaves". N. Wiener, *Dumnezeu si Golemul*, Bucharest 2019, 59.

<sup>&</sup>lt;sup>19</sup> According to Professor Lucian Boia, "history is not a simple mechanical movement, but a movement impregnated with human attitudes, representations, reactions, extremely fluctuating decisions"; "it is an endless game of events", in which "its elementary particles, individuals, groups ..., act and interact in every way, in a multitude of networks, connections and combinations".

human beings, radically distinct from the surrounding organic and anorganic nature, history is understood by Harari, in its fundamental aspects, as a superstructural Darwinian evolution, in which the fundamental role is played by material microstructures subsumed to biology. For the central theme of this article, it is important to emphasize here that anthropology, which "began as a science of history", was inspired in the beginning by "the triumph of the scientific method in the natural sciences", so that "nineteenth-century anthropologists considered that socio-cultural phenomena were governed by laws and principles that can be discovered"<sup>20</sup>. Despite the fact that the Israeli professor supports a certain type of historical indeterminism - "history cannot be explained deterministically and it cannot be predicted because it is chaotic"<sup>21</sup> – he resists in the systemic vision of his ideas, without affecting its coherence – not infrequently debatable - exclusively at the gnoseological level. In the same way, although Harari shows that "to understand the rise of Christianity or the French Revolution, it is not enough to comprehend the interaction of genes, hormones and organisms, [but] it is necessary to take into account the interaction of ideas, images and fantasies as well"22 and that "in the case of modern history, scholars cannot avoid taking into account non-material factors such as ideology and culture"23, the ontological foundation of the development of human societies

L. Boia, Un joc fără reguli. Despre imprevizibilitatea istoriei, Bucharest 2016, 34. "Plagues, invasions, emigrations; the foundation, working and development of constitutional arrangements and political systems; wars, external and civil, revolutions, changes in religion and culture, gradual or abrupt, the formation of various kinds of collective identity – confessional, national, ideological – providential history in the sense of dealings of God with man: all these and much else are properly regarded as *history*". J. Burrow, *A History of Histories. Epics, Chronicles, Romances & Inquiries from Herodotus & Thucydides to the Twentieth Century,* London 2009, xiii. This way of understanding history is limited to the question "how?" and means "to reconstruct the series of specific events that led from one point to another", and explaining "why" – Harari's privileged approach, which lends itself very well to explanatory models in the natural sciences – it means "to find causal connections that account for the occurrence of this particular series of events to the exclusion of all others". Harari, Sapiens 265.

<sup>&</sup>lt;sup>20</sup> I. Hirghiduş, *Antropologie politică*, Cluj-Napoca 2013, 14.

<sup>&</sup>lt;sup>21</sup> Harari, Sapiens 267.

<sup>&</sup>lt;sup>22</sup> Harari, *Sapiens* 42.

<sup>&</sup>lt;sup>23</sup> Harari, Sapiens 100.

also falls into the field of biology, where the nature of Homo sapiens is also deeply rooted: "we are still animals, and our physical, emotional and cognitive abilities are still shaped by our DNA"; "our societies are built from the same building blocks as Neanderthal or chimpanzee societies, and the more we examine these building blocks - sensations, emotions, family ties - the less difference we find between us and other apes"24. For this reason, it is not surprising that over a quarter of a book that aims to be a short history of mankind in the last 100,000 years is dedicated to anthropogenesis and prehistory, respectively the Cognitive and Agricultural Revolution, ie those historical periods in which Darwinists ideas are the easiest to couple. "When dealing with ancient periods the materialist school reigns supreme"<sup>25</sup>. What is surprising, however, is a certain categorical inconsistency in the set of anthropological ideas (analysed in the next chapter), namely Harari's recourse to some non-scientific, purely philosophical categories, in contradiction with naturalistic theses: "at the dawn of the twenty-first century... Homo sapiens is transcending those limits [biologically determined]" and "it is now beginning to break the laws of natural selection, replacing them with the laws of intelligent design"26.

Evaluating the main ideas about the history and human nature of the historian at the University of Jerusalem, in an article in the *London Review of Books*, the author concludes that "Harari here enthusiastically repeats the lessons taught by Victorian scientific materialism; Religious legend notwithstanding, we are nothing special in the animal kingdom"<sup>27</sup>. Or, according to Harari's own formulations, "the whole of history takes place within the bounds of this biological arena"<sup>28</sup>, where "our mental and emotional world is governed by biochemical

<sup>&</sup>lt;sup>24</sup> Harari, *Sapiens* 42. Moreover, in *Homo deus*, perceived as a continuation of the *Sapiens* epic, Harari claims that man, as a biological entity, evolved randomly, even from the primary material forms, atoms and molecules: "all biological entities – from elephants and oak trees to cells and DNA molecules – are composed of smaller and simpler parts that ceaselessly combine and separate". Harari, *Homo deus* 121.

<sup>&</sup>lt;sup>25</sup> Harari, Sapiens 100.

<sup>&</sup>lt;sup>26</sup> Harari, *Sapiens* 445.

<sup>&</sup>lt;sup>27</sup> S. Shapin, The Superhuman Upgrade, London Review of Books 14, 2017, 29-31, 30 (02.07.2020), https://www.lrb.co.uk/the-paper/v39/n14/steven-shapin/the-superhuman-upgrade

<sup>&</sup>lt;sup>28</sup> Harari, Sapiens 43.

mechanisms shaped by millions of years of evolution<sup>29</sup>, although "our judicial and political systems largely try to sweep such inconvenient discoveries under the carpet<sup>30</sup>.

From a broader analytical perspective, Harari's ingenuity in the predominantly naturalistic approach to human history in *Sapiens* is manifested, essentially, at the stylistic-descriptive level<sup>31</sup>, through a multitude of unique associations and comparisons between prehistoric and modern man, and less in terms of the historical or cultural ideas themselves. Even the latter refer, overwhelmingly, to the beginnings of human history and have the form of speculative reconstructions of the lives of prehistoric people<sup>32</sup>, having as epistemic basis only a few archaeological evidence, Harari himself being the one

<sup>&</sup>lt;sup>29</sup> Harari, Sapiens 432.

<sup>&</sup>lt;sup>30</sup> Harari, Sapiens 264.

<sup>&</sup>lt;sup>31</sup> Referring to the interactions between *Homo sapiens* and Neanderthals, Harari ingeniously (stylistically) remarks that "even if a Neanderthal Romeo and a Sapiens Juliet fell in love, they could not produce fertile children, because the genetic gulf separating the two populations was already unbridgeable". Harari, *Sapiens* 16. Other samples of stylistic ingenuity: "teaching such ancient Sapiens to speak English, persuading them of the truth of Christian dogma, or getting them to understand the theory of evolution would probably have been hopeless undertakings"; "how is it that we now have intercontinental missiles with nuclear warheads, whereas 30,000 years ago we had only sticks with flint spearheads?"; "here and there a Luddite holdout refuses to open an email account just as thousands of years ago some human bands refused to take up farming and so escaped the luxury trap". Harari, *Sapiens* 22, 43, 99.

<sup>&</sup>lt;sup>32</sup> The trace of a human hand left about 30,000 years ago on the wall of the Chauvet-Pont d'Arc cave in southern France is interpreted by Harari: "somebody tried to say I was here!". Harari, *Sapiens* 1. In the wake of the Cognitive Revolution, the emergence of the social order following the expansion of human groups required a certain cohesive factor, which the Israeli author attributed to gossip: "gossip helped *Homo sapiens* to form larger and more stable bands", because "like the social instincts of chimps, those of humans were adapted only for small intimate groups". Harari, *Sapiens* 29. At the same time, the evolution from archaic groups under 150 individuals to cities with tens of thousands of inhabitants and empires with hundreds of millions, Harari explains it through *fiction*, the common belief in certain myths: "any large-scale human cooperation – whether a modern state, a medieval church, an ancient city or an archaic tribe – is rooted in common myths that exist only in people's collective imagination". Harari, *Sapiens* 30. A greater ingenuity of the Israeli historian is found more in the other two works, in general, in connection with the predictions of the technological, social and cultural future of mankind.

who recognizes the strictly limited nature of such investigative approaches: "unfortunately, there are few certainties regarding the lives of our forager ancestors", so "any reconstruction of the lives of ancient hunter-gatherers form the surviving artefacts is extremely problematic"<sup>33</sup>. Consequently, some critical receptions of the book *Sapiens: A Brief History of Humankind*, in the sense that "Harari is a better social scientist than philosopher, logician or historian", respectively that his attempts "to his piecing together of the shards of pre-history imaginative and appear to the non-specialist convincing"<sup>34</sup> are perfectly justified.

In the contemporary context of (hyper) socio-professional specializations, generated by the epistemic (excessive) fragmentation of science and culture, the popularity of the Israeli historian and his first book *Sapiens* – about which some have stated, however, that "*this book does bring anything new*"<sup>35</sup> – can also be sought in facilitating the access of the contemporary reader to some classical philosophical ideas, which can be glimpsed in the subtext of Harari's "own" ideas, without being named, however, intentionally or not, the source of their origin. In other words, Harari brought out of the dusty trunk of the history of philosophical thought a series of predominantly materialistic ideas, which he offered to his readers in a new, concise and clear stylistic formulation, supplemented by the use of recent scientific knowledge, able to make them more attractive, beyond that attractiveness specific to their intrinsic conceptual strength.

Thus, the very biologicalizing view of the Israeli author on human history, far from being an original one, "part of a long materialist tradition of ontological unification"<sup>36</sup>, is fully nourished and reiterates the predominant materialist ideas of the post-Enlightenment era, which had their philosophical ascendancy in seventeenth-century British empiricism and in the French mechanistic

<sup>&</sup>lt;sup>33</sup> Harari, Sapiens 47-48.

<sup>&</sup>lt;sup>34</sup> M. Paul, Sapiens – a critical review (04.07.2020), https://www.bethinking.org/human-life/sapiens-review

<sup>&</sup>lt;sup>35</sup> F. Provencher, Critique of the Book Sapiens by Yuval Noah Harari (04.07.2020), https://sciencesconnexions.com/en/2019/03/09/critical-of-book-sapiens-de-yuval-noah-harari/

<sup>&</sup>lt;sup>36</sup> P. K. Moser, J.D. Trout, General Introduction: Contemporary Materialism, in: P. K. Moser, J.D. Trout (ed.), *Contemporary Materialism. A Reader*, London and New York 5.

materialism of the 18th century, represented by Julien Offray de La Mettrie<sup>37</sup> (1709-1751), d'Holbach (1723-1789) and Denis Diderot (1713-1784). Ever since the Scientific Revolution, philosophically, the way has been opened for the idea that all phenomena are the result of a motion of bodies, determined by material causes and without purpose", and Thomas Hobbes (1588-1679), fully adhering to this mechanic perspective, launched the idea – quite often reiterated by Harari<sup>38</sup> – that "the only tools for explaining phenomena are bodies and movement, to which even human thought and all spiritual activities are reducible<sup>39</sup>. Gradually, through the broad competition of Western political factors, materialist ideas and Enlightenment "methodological" principles – the autonomy of reason and the gnoseological centrality of modern science – were extended to the level of conceptualization of human activities understood as strictly dependent on matter, which led to the significant restriction of the academic authority of providential history, giving way to "secular schemes"<sup>40</sup> such as the following.

The English historian Henry Thomas Buckle (1821-1862), sometimes called "*the father of scientific history*"<sup>41</sup>, fiercely argued for the primacy of the natural sciences, including the social sciences, on the principle that any human action is determined by fixed laws, such as those in the physical world, which

<sup>&</sup>lt;sup>37</sup> J.O. de La Mettrie developed the theory of *man-machine* "by which the whole universe is matter in motion and is explicable in mechanical terms". C. Lunghi, Materialism, in: *Enciclopedie de filosofie și științe umane*, Bucharest 2004, 651-652.

<sup>&</sup>lt;sup>38</sup> "Scientists ... increasingly argue that human behaviour is determined by hormones, genes and synapses, rather than by free will – the same forces that determine the behaviour of chimpanzees, wolves and ants". Y.N. Harari, *Sapiens* 262.

<sup>&</sup>lt;sup>39</sup> Lunghi, Materialism 652. Moreover, Hobbes took from Galileo a founding idea for modern science, as well as for the field of contemporary socio-human sciences - "the principle of the reducibility of motion to mathematical relations, extending it from the field of physical phenomena to the whole reality, including society". F. Neagoe, Thomas Hobbes, in: *Istoria filozofiei moderne si contemporane, Vol. I. De la Renastere la epoca "luminilor*", Bucharest 1984, 359-377, 365. This conception of Hobbesian origin about the mathematization of methods for investigating historical phenomena was also adopted by Harari: "scientists usually seek to attribute historical developments to cold economic and demographic factors, [because] it sits better with their rational and mathematical methods. Harari, *Sapiens* 100.

<sup>&</sup>lt;sup>40</sup> Shapin, The Superhuman Upgrade 30.

<sup>&</sup>lt;sup>41</sup> (04.07.2020), http://historyscoper.com/time185x.html.

would allow the use of the same scientific methods of research. Quoting from his monumental (unfinished) work, History of Civilization in England, A.D. Xenopol shows us in *Theory of History*, published in Paris in 1908, that not even literature escaped the epistemological web of Buckle's ideas about the exclusivity of the natural sciences in describing physical and social reality: "Buckle is so absorbed in his preconceived idea, the unique importance of the natural sciences, so that it challenges literature to any value, except to help us discover the laws of nature"42. Also, for the German physiologist Emile du Bois-Raymond (1818-1896), "the natural sciences are the absolute organ of civilization and the history of these sciences is actually the history of humanity"43. It is absolutely clear that Charles Darwin's On the Origin of Species by Means of Natural Selection (1859), the best-known mark of Victorian scientific materialism<sup>44</sup>, became the cornerstone of naturalistic thinking, and thus of historical visions of this kind, and, a little later, The Descent of Man, and Selection in Relation to Sex (1871) the book "taking things to the orangutan"<sup>45</sup> – finalized the conceptual structure of Darwinian anthropology, the main source of inspiration for Harari's conception of sapiens. At the end of the last work, the famous British naturalist concludes that "there can be no doubt that we come from the savages", respectively that "man, with all his noble qualities, ..., with his divine intellect with which he entered the movements and constitution of the system solar, ..., he still bears in his bodily structure the indelible seal of his inferior origin"46.

<sup>&</sup>lt;sup>42</sup> A.D. Xenopol, *Teoria istoriei*, Bucharest 1997, 180.

<sup>&</sup>lt;sup>43</sup> Xenopol, *Teoria istoriei* 180.

<sup>&</sup>lt;sup>44</sup> Also known as *scientific naturalism*, it was a distinct Victorian movement that emerged in unique circumstances between 1850 and 1900, with the goal of redefining science by eliminating natural theology. "They was *naturalistic* in that they permitted no recourse to causes not present in empirically observed nature, and they was *scientific* because nature was interpreted according to three major mid-century scientific theories: the atomic theory of matter, the conservation of energy, and evolution". G. Dawson, B. Lightman (ed.), *Victorian Scientific Naturalism. Community, Identity, Continuity*, Chicago and London: University of Chicago Press 2014, 11. Cf. F.M. Turner, *Between Science and Religion. The Reaction to Scientific Naturalism in Late Victorian England*, New Haven 1974, 9-12.

<sup>&</sup>lt;sup>45</sup> P. Johnson, *Darwin. Portretul unui geniu*, Bucharest 2018, 110.

<sup>&</sup>lt;sup>46</sup> Charles Darwin, Descendența omului și selecția sexuală, Bucharest 1967, 501.

Last but not least, among the "secular schemes" of theorizing human history reiterated to some extent by Harari is the law of the three successive stages of August Comte (theological, metaphysical and scientific), reflected in Sapiens by the recurrent idea of the progress of the people who invented the gods, in order to end themselves in becoming "gods" (Homo deus), but, above all, by mastering "the essence of this law, which consists in proclaiming the incompatibility of the coexistence of the three ways of thinking"47, and twentieth-century dialectical materialism (DIAMAT), inspired by Hegel, Marx, and Engels. Through the naturalistic profile of his historical and anthropological thinking, the Israeli professor fully agrees with the fundamental principle of this philosophical-political current of the primacy of matter over consciousness, suggesting only the provisional scientific method in explaining the causal link between the latter and the neurobiological substratum: "after centuries of extensive scientific research, biologists admit that they still don't have any good explanation for how brains produce consciousness"48. And Engels's thesis in The Dialectic of Nature (1876), consisting in the identity of cognitive processes to be used in the humanities and natural sciences, coincides with Harari's vision of how to know historical and social reality.

Although it does not embrace the metaphysical determinism of economic factors in the evolution of history<sup>49</sup>, in the substratum of textual formulations of ideas in *Sapiens* can be glimpsed certain aspects of historical materialism, strongly demonetized in the culture of Central and Eastern Europe, due to the experience of recent history dramatic effects of these societies. It is about the internal dialectical dynamics of cultures – "cultures also undergo transitions due their own internal dynamics; …unlike the laws of physics, which are free of inconsistencies, every man-made order is packed with internal contradiction"<sup>50</sup> – and about the natural determinism (at least the genetic one) repeatedly postulated by Harari. For example, if we replace the relations and forces of

<sup>&</sup>lt;sup>47</sup> M. Uță, *Legea celor trei stări în filosofia lui August Comte*, Craiova 2013, 128.

<sup>&</sup>lt;sup>48</sup> Harari, Sapiens 281.

<sup>&</sup>lt;sup>49</sup> "Communists claimed that Marx and Lenin had divined absolute economic thruths that coud never be refuted". Harari, *Sapiens* 282.

<sup>&</sup>lt;sup>50</sup> Harari, Sapiens 182.

production in the classical doctrine of historical materialism<sup>51</sup> with the DNA and neuromediators (biochemical algorithms) of *Homo sapiens*, the underlying natural driving forces in the conception of the Israeli historian, the distance between Marx and Harari disappears almost completely.

From the above it follows that the international popularity of the historian at the Hebrew University of Jerusalem and the great media success of the book that made him famous cannot be attributed to an original historical and anthropological vision, because Harai's conception is based almost exclusively on reiterating philosophical ideas, naturalistic classics, recognizable in the subtext by a competent reader. Instead, the stylistic ingenuity manifested in the unique intertwining and associations between classical ideas and recent scientific knowledge is certainly one of the causes of the massive and rapid<sup>52</sup> reception of the book *Sapiens*, in full harmony with the contemporary scientism. After all, this very collective mentality that has become one of the post-Enlightenment identity marks of the European spirit, based on experimental verificationism and mathematical algorithms, is also the main premise for increasing philosophical ignorance of ideas and currents of thought competing with materialism, that aims to consolidate the popularity of "influential metaphysics"<sup>53</sup> present nowadays, according to Umberto Eco.

<sup>&</sup>lt;sup>51</sup> "What we can see as the primary reality – the state, laws, religions and ideologies – are only 'superstructures' mounted on 'relations of production', themselves fixed in a certain state of 'forces of production'". J. Baudouin, Marxism, in: S. Courtois (ed.), *Dicționarul comunismului*, Iași 2008, 405.

<sup>&</sup>lt;sup>52</sup> Because "history is the only *science* that belongs to everyone, not just specialists" (L. Boia, *Un joc fara reguli* 23), through its informative and cognitive content poured into attractive stylistic forms, Harari's book allows effective access to wider categories of intellectuals, unlike Stephen Hawking's bestseller, *A Brief History of Time* (1988), which, although sold in millions of copies, remained inaccessible to most buyers. "Many, many people, between 9 and 10 million, rushed to buy this book – illegible for anyone without a doctorate in physics – and then put it in the library, respectfully, saying that one day, later, who knows…" F. Rouvillois, *O istorie a bestsellerului*, Bucharest 2013, 248.

<sup>&</sup>lt;sup>53</sup> The problem is – said the Italian thinker – "to identify that influential metaphysics that, due to its popularity, everyone hears talking about at some point; of course, it can be argued with Berkley that *esse est percipi* and it can be said that Prosciuttini's works exist because they are perceived", but this type of metaphysics has no influence on the contemporary public admiring painting", as in the situation of ideas contrary to different variants of materialism. U. Eco, Cum să prezinți un catalog de artă, in: U. Eco, *Minunea Sfântului Boudolino*, Bucharest 2000, 30.

CRITICAL POINTS ON ANTHROPOLOGICAL IDEAS IN YUVAL NOAH HARARI'S WRITINGS

Moreover, the expansion of materialist visions in Western intellectual circles gradually led even to the expulsion of philosophical and theological thought outside the realm of authentic knowledge of the physical and human universe, following the pattern of epistemological "evolution" intuited by A. Comte - "theology, metaphysics and science are three distinct degrees of world explanation; they succeed each other, but do not coexist (emphasis added)"54. Almost 60 years ago, the Catholic Church also remarked that "the denial of God or of religion (...) is presented today as a requirement of scientific progress or of a new humanism"55, and Harari fully confirms this thesis: "biologist the world over are locked in battle with the intelligent-design movement"<sup>56</sup>. Although we have not identified any sociological studies in this regard, we can firmly believe that the philosophical and theological ignorance "responsible" in part for the popularity of the bestseller Sapiens is reflected in its record sales in countries such as the United Kingdom (over 1.8 million copies), France (over 600,000 copies) and Germany, where the percentages of atheism are among the highest in the world<sup>57</sup>. On the other hand, however, sociological analyses of resistance to change through the mechanism of selective exposure<sup>58</sup> explain why collective thinking of the materialist-atheist type, strongly internalized by an important segment of Western European and American intellectuals (target-

<sup>&</sup>lt;sup>54</sup> Comte, Legea celor trei stări 128.

<sup>&</sup>lt;sup>55</sup> Second Vatican Council, *Gaudium et spes* (7). Harari goes beyond a "new humanism" and postulates in the near future the beginning of a real *post-humanism*: "the Frankenstein myth confronts *Homo sapiens* with the fact that the last days are fast approaching; ...the pace of technological development will soon lead to the replacement of *Homo sapiens* by completely different beings who possess not only different physiques, but also very different cognitive and emotional worlds". Y.N. Harari, *Sapiens* 462.

<sup>&</sup>lt;sup>56</sup> Harari, Sapiens 447.

<sup>&</sup>lt;sup>57</sup> According to the Pew Research Center in Washington, in 2017, the percentage of atheism in the UK was 8%, 15% in France and 10% in Germany. The most atheist country in Europe was the Czech Republic, with a percentage of 25%, and the least atheist - Romania, with a number of atheists below 1%. Cf. M. Lipka, 10 facts About Atheists (07.04.2020) https://www.pewresearch.org/fact-tank/2019/12/06/10-facts-about-atheists/

<sup>&</sup>lt;sup>58</sup> "The process by which, consciously or not, people avoid exposure to that information that is at odds with their values, norms, attitudes and opinions and preferentially seek information that support their beliefs". P. Ilut, *Valori, atitudini și comportamente sociale. Teme actuale de psihosociologie*, Iași 2004, 59.

readers of Harari), implies ignorance or even aversion to opposing philosophical or theological ideas and systems of ideas (*eg*, theories of intelligent design). In their case, sociologists also tell us that the phenomenon of *reactance* can occur, which consists in a reverse negative reaction, in the sense that "the message promoted by the communicator not only does not change your position, but induces and develops an opposite point of view"<sup>59</sup>.

In addition to this collective ignorance, against the background of professional hyperspecializations in the contemporary world, there is an individual ignorance – responsible for the great public outcry of the anthropological vision of Harari's writings – determined by the absence of critical thinking<sup>60</sup>, as a result of the absolutization of scientific rationality as well as the cognitive difficulty *per se* and the mystagogical nature of many philosophical ideas and systems, which made Plato notice that philosophy (and mathematics) is for *ol olivol*, and not for *ol πollol*. From this last perspective, Harari appears as a contemporary Bazarov, the character of Turgenev in *Parents and Children*, who, having managed to penetrate himself into the complicated universe of natural sciences and materialistic ideas, condescendingly shares them with the ignorant of around him. However, if Arkadi Kirsanov's family and relatives in his hometown, where he returns after graduation with Bazarov, show ignorance, but also resistance to the naturalistic conceptions of the young doctor, the majority

<sup>&</sup>lt;sup>59</sup> Iluț, Valori, atitudini și comportamente sociale 60.

<sup>&</sup>lt;sup>60</sup> Overcoming *selective exposure* and *reactance* can be achieved by cultivating *critical thinking*, which is based on "the epistemology ... itself full generalizable", "according to which there is a rejection of relativism, an important distinction to be drawn between *rational justification* and *truth*, and a recognition that rational justification, though distinct form truth, is a fallible indicator of it". S. Bailin, H. Siegel, Critical Thinking, in: N. Blake (ed.) et al., *The Blackwell Guide to the Philosophy of Education*, Oxford 2003, 185. One of the most known expressions of critical thinking transposed into the philosophy of science is the *critical rationalism* of Karl Popper, whose conceptual pattern can be partially extended to the sphere of Christian theology, provided that the data of positive revelation are preserved. Such a possibility of knowledge by confronting the data of science and philosophical ideas with Christian doctrine was also supported by Pope Francis in a video message addressed to the International Congress of Theology at the Pontifical Catholic University of Argentina (September 1-3, 2015): "in reality, our doctrine or, rather, our understanding and expression of it, 'is not a closed system, devoid of dynamics capable of generating questions, doubts". Papa Francisc, *Gaudete et exsultate* (44), Iaşi 2018, 23.

intellectual elite in contemporary Western<sup>61</sup> society where Harari "returns" does not display any hostility towards the biologicalizing ideas about human nature, but, on the contrary, manifests a mental predisposition towards accepting them, without any critical sense. Added to this is the decline in the general appetite of (post) modern man for individual extraprofessional study, given the resurgence of what Marshall Mc Luhan prophesied in the early 1960s as "the sunset of alphabetical linearity and image domination"<sup>62</sup>, but not because of the mass spread of television, but of increasingly sophisticated smartphones and tablets, due to the unprecedented development of nanotechnology. Even Harari explicitly acknowledges in the introduction to his latest book, *21 Lessons for the 21<sup>st</sup> Century*, the ignorance of contemporary man, which he attributes only to everyday worries. "Billions of us can hardly afford the luxury of investigating, because we have more pressing things to do: we have to go to work, take care of the kids, or look after elderly parents"<sup>63</sup>.

Finally, the fourth co-determining factor that we can attribute to the global media avalanche of *Sapiens* and, implicitly, to the wide dissemination of his axial anthropological ideas, is what Karl Rahner called *gnoseological* (*epistemological*) concupiscence. Making a transposition in the plane of knowledge of the term concupiscentia<sup>64</sup> from Thomistic moral theology, the German theologian understands by concupiscence "the unintegrated pluralism of the different aspects that characterize human reality", in a world "overwhelmed by the disconcerting and insoluble plurality of all conceptions and beliefs of

<sup>&</sup>lt;sup>61</sup> Historically, the conflict between science and religion "is primarily a Western problem, for it is here that the respective categories emerged and are most potent". P. Harison, "Science" and "Religion": Constructing the Boundaries, *The Journal of Religion* 1, 2006, 81-106, 104.

<sup>&</sup>lt;sup>62</sup> Cf. U. Eco, Cronicile unei societăți lichide, Iași 2016, 292.

<sup>&</sup>lt;sup>63</sup> Harari, 21 Lessons 1.

<sup>&</sup>lt;sup>64</sup> "In its strict and specific acceptation, a desire of the lower appetite contrary to reason". J. Ming, Concupiscence, in: *The Catholic Encyclopedia*, New York, 1908, from New Advent: *http://www.newadvent.org/cathen/04208a.htm*. St. Thomas Aquinas renders in *Summa Theologiae Ia-IIae*, *q. 30, a. 1, co* the short definition of Aristotle from *Retorica:* "concupiscentia est appetitus delectabilis". Sancti Thomae Aquinatis, *Opera omnia iussu impensaque Leonis XIII PM edita, pp. 6-7: Prima secundae Summae theologiae*, Romae: Ex Typographia Polyglotta SC de Propaganda Fide 1891-1892 (08.07.2020), *https://www.corpusthomisticum.org/sth2026.html* 

human life<sup>"65</sup> – a real source of perpetuation of individual ignorance, by discouraging critical thinking in favor of a predominantly quantitative cognitive assimilation; that is why, for Rahner, "our times are marked by a *gnoseological concupiscence*"<sup>66</sup>. In the absence of a guiding beacon, such as that represented by the complex of moral and spiritual rules and guidelines in Christian theology to avoid/diminish the concupiscence of the senses, "our consciousness receives information and intuitions from the most varied sources of knowledge"<sup>67</sup> and these sources "they can no longer be ordered in a positive and appropriate way in a coherent amount of knowledge"<sup>68</sup>.

The Sapiens phenomenon and, in general, the Harari phenomenon, can be seen through prism of the Rahnerian concept of epistemological concupiscence in two ways: either as a consequence of it or as a solution to it (as for the popular animated character Homer Jay Simpson, alcohol could be "the cause and solution of all life's problems"). From the last perspective, Sapiens wants to be a kind of orientation guide through the particularly twisted labyrinth of knowledge, a real brevity of contemporary evolutionary anthropology, meant to keep the reader with materialistic beliefs away from the information bombardment (non-selective) and, above all, far from the philosophical and theological ideas that could degenerate into a particular variant of "epistemological concupiscence". According to Harari's own wording, "in a world deluged by irrelevant information, clarity is power"<sup>69</sup>. Since the time of ancient philosophy, by the very meaning given to individual knowledge, namely that to know "is not a piling-up of known facts, but rather the achievement of understanding, something that we do when we master a field or body of knowledge and explain systematically why things are thatwaythey are"70, philosophers foreshadowed the danger of concupiscence of accumulations of purely quantitative knowledge in the way of authentic knowledge ( $i\pi\iota\sigma\tau\eta\mu\eta$ ), without an internal ideational coherence and without an adequate cognitive assimilation, so that the later adjective addition of Karl

<sup>&</sup>lt;sup>65</sup> Taloş, Cum să mă orientez 68.

<sup>&</sup>lt;sup>66</sup> Cf. Rahner, Glaubensbegrundung heute 21. Taloş, Cum să mă orientez 68.

<sup>&</sup>lt;sup>67</sup> Taloș, *Cum să mă orientez* 68.

<sup>&</sup>lt;sup>68</sup> Cf. Rahner, *Glaubensbegrundung heute* 21. Taloş, *Cum să mă orientez* 68.

<sup>&</sup>lt;sup>69</sup> Harari, 21 Lessons 1.

<sup>&</sup>lt;sup>70</sup> J. Annas, Ancient Philosophy. A Very Short Introduction, Oxford 2000, 16.

Rahner (*the epistemological* adjective) was not accidental at all. From the argumentative analysis and the informational content of the book, Harari seems to have mastered part of the ideal of ancient philosophy about individual knowledge, which he tries to convey to the reader, but the recurrence of his anthropological ideas of naturalistic nature, although they are in in full consonance with the exclusive and materialistic scientific *zeitgeist* of Western secularized culture, they are far from the pattern of ancient philosophical thinking, deeply interrogative, which still structures philosophical thinking today. In this sense, Aristotle pointed out that "philosophy begins with wonder and puzzlement, and develops as we find more and more complex answers to and explanations for what were problems for us"<sup>71</sup>.

# 3.) Categorical discordancies and gnoseological inconsistency in the materialist approach to *the human* in Harari's writings

Indeed, what else can surprise us about our own ontological nature, if Harari tells us that we are just "biochemical algorithms" or biological entities, which, even evolved, remain at the discretion of natural determinism, expressed in a brilliant literary form of more than two thousand years by Lucretius (94 BC - 55 BC), in De Rerum Natura: "bodies, moreover, are in part the firstbeginnings of things [atoms], in part those which are created by the union of first-beginnings. Now the true first-beginnings of things, no force can quench; for they by their solid body prevail in the end"<sup>72</sup>? Upon careful questioning, after a deep probe into the soil of the history of philosophy and, especially, of philosophical anthropology, there is, however, something that may surprise us, namely, the almost complete lack of the philosophical vein in the writings of the Israeli professor, despite the obvious philosophical significance of many of the issues he debates, the most thorny of which is the problem of the intimate ontological nature of Sapiens, if we exclude, of course, the fundamental metaphysical question "what is there something rather than nothing?"<sup>73</sup>, mentioned only in passing, with absolutely no reflection on it, by Harari. Kant himself,

<sup>&</sup>lt;sup>71</sup> Annas, Ancient Philosophy 16.

<sup>&</sup>lt;sup>72</sup> Lucretius, On the Nature of Things, translated by C. Bailey, Oxford 1948, 43 (Book I, 485).

<sup>&</sup>lt;sup>73</sup> Harari, 21 Lessons 231.

the spearhead of modern rationalism and one of the leading thinkers of scientific rationality at the foundation of contemporary empirical sciences, places the issue of the soul and human freedom in the transcendental sphere: "what happens here is what happens generally in the conflict of reason venturing beyond the limits of possible experience, namely, that the problem is not physiological, but transcendental<sup>774</sup>. If we add to this what Harari says with subject and predicate about Kant and two other philosophers (John Stuart Mill and John Rawls) when he refers to the solution of philosophical problems of ethics through a "philosophical machine" - "if we teach Kant, Mill and Rawls to write code [computer algorithms], they can carefully program the self-driving car in their cosy laboratory", thus finding "a way to code ethics in precise numbers and statistics"<sup>75</sup> -, it is very clear to us that the Israeli "philosopher" by *philosophy* means anything other than what Kant himself understood (and the other authentic philosophers over two and a half millennia of philosophical thought). Or, if you have to ask *what philosophy is?*, the situation is the same as the one that determined Louis Armstrong to say: "if you have to ask what jazz is, you will never know".

In fact, Harari makes no reference to philosophical thought even when analyzing the Scientific Revolution and the emergence of modern science in Europe, although it is almost common in the history of science that scientific rationality was founded and detached from the trunk of ancient and medieval philosophical thought or even from some branches of natural theology (*e.g.*, Thomas Aquinas, as he claims A. Whitehead). On the contrary, in a completely marginal and pejorative way, Harari only remembers that "the undisputed monarch of all sciences was theology" and makes an anachronistic remark, totally unprofessional for a history professor with a doctorate at Oxford: "in medieval Europe, logic, grammar and rhetoric formed the educational core, while the teaching of mathematics seldom beyond simple arithmetic and geometry; nobody studied statistics"<sup>76</sup>. Beyond the fact that, like all other empirical sciences, there is a mathematical thinking in full swing, emerging

<sup>&</sup>lt;sup>74</sup> I. Kant, Critique of Pure Reason, second edition, 1922, 434 (10.07.2020), http://files.libertyfund.org/files/1442/0330\_Bk.pdf

<sup>&</sup>lt;sup>75</sup> Harari, 21 Lessons 74.

<sup>&</sup>lt;sup>76</sup> Harari, Sapiens 287-288.

from the Persian-Arabic space, based on the works of Euclid, Archimedes and Apollonius<sup>77</sup>, to say (accusatory) that in the Middle Ages they did not study statistics is the same as attributing to this historical epoch the lack of quantum microprocessors! Instead, Harari's (non-original) idea of a kind of *docta ignorantia* that formed the basis of the Scientific Revolution, although not wrong – "the Scientific Revolution has not been a revolution of knowledge; it has been above all a *revolution of ignorance*", in the sense that "the great discovery that launched the Scientific Revolution was the discovery that humans do not know the answers to their most important questions"<sup>78</sup> – it does not explain at all the essential historical causes that they determined it, in dissonance with their own narrative and argumentative structure from the previous chapters of *Sapiens*' book on the Cognitive and Agricultural Revolution.

Along with Harari's general ignorance of the gnoseological specifics of philosophy, impossible to understand given that he called himself "historian and philosopher", it is worth noting that, although from the beginning of philosophical thought, philosophers' reflections on the world around them began with an understanding of their own human nature and extended to the very process of understanding and knowledge, Harari confines himself to the Darwinian finding that "the real meaning of the word *human* is 'an animal belonging to the genus *Homo*"<sup>80</sup> and tells us almost nothing about the nature of the act of knowledge, placing it only under the dome of the biochemical phenomena inside the brain, which are themselves under the rule of the irrepressible need to be approached cognitively in the same way. Moreover,

<sup>&</sup>lt;sup>77</sup> In the ninth century AD, the Persian mathematician al-Khwarizmi (780-850) or Latinized *Algorithmi* – from which the term *algorithm*, so much loved by Harari, is derived – is particularly notable for his works on algebra and astronomy.

<sup>&</sup>lt;sup>78</sup> Harari, Sapiens 279.

<sup>&</sup>lt;sup>79</sup> (09.07.2020), https://www.newyorker.com/magazine/2020/02/17/yuval-noah-harari-gives-thereally-big-picture.

<sup>&</sup>lt;sup>80</sup> Harari, *Sapiens* 5. The exclusively Darwinian anthropological orientation also results from the fact that Harari reserves the meaning of the term *human* to refer to "all members of the genus *Homo*", while using the term *sapiens* in terms of traditional meaning of *man*, belonging only to the species *Homo sapiens*. When he speaks of *prehistory*, however, there is an obvious discordancy in the meaning of *the human*, because by human, Harari refers even to *sapiens*: the term *prehistory* "it wrongly implies that even before the Cognitive Revolution, *humans* were in a category of their own". Harari, *Sapiens* 42.

referring to the Human Brain Project, founded in 2005, the Israeli historian even postulates the possibility of complete reproduction of mental processes in the human brain "inside a computer, with electronic circuits in the computer emulating neural networks in the brain", which would coincide with the exclusion of any other ontological and gnoseological level of understanding the human being, outside of biological matter, although he acknowledges that "<sup>81</sup>. On the other hand, in *21 Lessons for the 21<sup>st</sup> Century*, after considering the possibility of an exclusive association between consciousness and organic biochemistry, Harari leaves open the (ultra) reductive materialist variant: "there are no essential links between consciousness and either organic biochemistry or high intelligence; hence computers might develop consciousness – but not necessarily"<sup>82</sup>.

More problematic than the gnoseological inconsistency of anthropological ideas, which we will return to, is the categorical inconsistency (discordancy) in the materialist approach to *the human*, reflected both in the conception of *history* and historical phenomena, but especially in the biological understanding of human *freedom* and *free will*, on whose significance depends the very conception of the meaning of history. After all, "history proper seems limited to the sphere of human action, natural events being included only so far as they affect or are affected by human action" and "problems in the philosophy of mind, about action, free will, causation, rationality, are therefore especially relevant to the philosophy of history"<sup>83</sup>. In other words, in order to understand history as a superstructural human phenomenon, there is an urgent need for a coherent global vision, which, in turn, harmoniously subsumes the concepts from the philosophy of mind listed above. However, due to a suite of categorical

<sup>&</sup>lt;sup>81</sup> Harari, Sapiens 458. Karl Popper and John Eccles assimilate this functionalist theory to eliminativist materialism – "promissory materialism" –, which consists, essentially, "of a historical (or historicist) prophecy about future results of brain research and of their impact", but "this prophecy is baseless" epistemological and ontological. K. R. Popper, J.C. Eccles, *The Self and Its Brain*, Berlin Heidelberg New York 1977, 97.

<sup>82</sup> Harari, 21 Lessons 80.

<sup>&</sup>lt;sup>83</sup> M. Proudfoot, A.R. Lacey, History (philosophy of), in: *The Routledge Dictionary of Philosophy*, London and New York 2010<sup>4</sup>, 166-167.

inconsistencies (discordancies)<sup>84</sup> and even logical contradictions, grafted on an inconsistent anthropological conception in which man often oscillates between animal and singularity, in Harari's writings it is impossible to identify such a *weltanschauung*.

In the above lines, dedicated to the multidimensional explanations of the popularity of Harari and the book *Sapiens*, I reviewed two such categorical inconsistencies regarding Harari's recourse to historical explanations from a completely different register than the biological one: "the interaction of ideas, images, fantasies" and non-material factors and the *transcendence* of history by *sapiens*, followed by the intelligent projection of the future, totally incompatible with the reductionist image of man that he obsessively asserts ["human behavior is determined *by hormones, genes and synapses*, rather than by free will" (e.a.)] and I left an open space for the problem of historical indeterminism, which I perceived strictly on the gnoseological level, so as not to affect the naturalistic character of the overall vision of the Israeli historian, with accents of inconsistency not at all isolated.

The analogy between human history and chaotic systems – "so many forces are at work and their interactions are so complex that externally small variations in the strength of the forces and the way they interact produce huge differences in outcomes"<sup>85</sup> (*butterfly effect*) –, despite its unpredictability, does

<sup>&</sup>lt;sup>84</sup> In Chapter 19 of Sapiens – And They Lived Happily Ever After –, after distinguishing between psychology and biology and speaking in a first register about money, democracy, health and family as external sources of happiness, Harari it then suddenly passes to the biochemical ontological register of happiness, without any epistemic correlation of it with the previous economic, social and political categories, which represents an obvious categorical inconsistency. If in one place it is stated that "the crucial importance of human expectation has far-reaching implications for understanding the history of happiness" (Harari, Sapiens 429), three pages later Harari states the exclusivity of the biological: "people are made happy by one thing and one thing only – pleasant sensation in their body"; also "our subjective well-being is not determined by external parameters such salary, social relations or political rights; rather, it is determined by a complex system of nerves, neurons, synapses and various biochemical substances such serotonin, dopamine and oxytocin" (Harari, Sapiens 432).

<sup>&</sup>lt;sup>85</sup> Harari, *Sapiens* 266. In this issue, Harari is aware of the theory of chaos formulated by the American mathematician Edward Lorenz in 1960, according to which "a phenomenon that seems to take place at random, has in fact an element of regularity that could be described

not per se contradict an ontological determinism and completely excludes any contingency that characterizes the classical perspective on human history, based on the dualistic anthropological model - body and soul -, the only one able to support the real transcendence of biology and the decision-making and action freedom of man. The categorical inconsistency also appears here and not in a few places - including in the two books published after Sapiens because Harari uses notions and categories<sup>86</sup> that necessarily imply ontological contingency, respectively the idea of a human being that can act as an autonomous causal and conscious agent, ideas at the opposite pole in relation to the naturalistic-deterministic structure of his overall vision of the historical evolution of mankind (if after noticing these inconsistencies it may be a "historical vision") and of man himself: "what, then, is so special about our language? ... We can connect a limited number of sounds and signs to produce an infinite number of sentences, each with a distinct meaning"<sup>87</sup> (e.a.); "while the behaviour patterns of archaic humans remained fixed for tens of thousands of years, Sapiens could transform their social structures, the nature of their

mathematical". (10.07.2020), https://sites.google.com/site/proiectfizica11/. On the other hand, with regard to the explanatory model of "level two chaos" ("chaos that reacts to predictions about it"), which Harari associates with history, it is important to emphasize that it only makes sense in the case of a certain indeterminism; in the case of potential complete predictions, the concept itself would self-annihilate, because the predictions would, in fact, be equivalent to determinism itself. Therefore, in the (rhetorical) question "what will happen if we develop a computer program that *forecast* 100 per cent accuracy the price of oil tommorow?" (e.a.), the term *forecast* used by Harari denotes a logical inconsistency. Harari, *Sapiens* 268. Karl Popper also considered that "the idea of an accurate and very detailed social calendar is contradictory in itself and therefore accurate and detailed scientific social predictions are impossible". K. Popper, *Mizeria istoricismului*, Bucharest 1998, 7.

<sup>&</sup>lt;sup>86</sup> It is not about gnoseological categories decomposable into subcategories, used to explain a fragment or a complex phenomenon of social or physical reality, such as revolutions or levels of integration and organization of living matter, but about categories and subcategories in incompatibility. *E.g.*, a political revolution involves free individuals, not a conglomeration of molecules, governed by the Brownian motion.

<sup>&</sup>lt;sup>87</sup> Harari, *Sapiens* 24. The hypothesis of the infinite combinatorial possibilities of human language cannot be reconciled with the materialist perspective of the philosophy of mind, because the number of neural connections, even astronomical, is, however, essentially *finite*.

interpersonal relations, their economic activities and a host of other behaviours within a decade or two" (e.a.)<sup>88</sup>; "the immense diversity of *imagined* realities that Sapiens *invented*, and the resulting diversity of behaviour patterns, are the main components of what we call 'cultures' "89 (e.a.); "the real difference between us and chimpanzees is the *mythical glue* that binds together large numbers of individuals, families and groups" and "this glue has made us the masters of creation"90; "since the Cognitive Revolution, there hasn't been a single natural way of life for Sapiens, [but] there are only cultural *choices*, from among a bewildering palette of possibilities"91; "while human evolution was crawling at its usual snail's pace, the human imagination was building astounding networks of mass cooperation, unlike any other ever seen on earth"<sup>92</sup>; "it's culture that obliges people to realise some *possibilities* while forbidding others" (e.a.)<sup>93</sup>; "around AD 1500, history made its most momentous choice, changing not only the fate of humankind, but arguably the fate of all life on earth"94 (e.a.); "for billions of years, intelligent design was not even an option, because there was no intelligence which could design things", but currently sapiens "break the laws of natural selection with impunity"<sup>95</sup> (e.a.); "if the future of humanity *is decided* in your absence, because you are too busy feeding and clothing your kids - you and they will not be exempt from the consequences"96; "in the past, we humans have learned to control the world outside us, but we had very little control over the world inside us"?; "*liberty* is not worth much unless it is coupled with some kind of social safety net"98; "the analogy between history and biology that

- <sup>89</sup> Harari, Sapiens 41.
- <sup>90</sup> Harari, *Sapiens* 42.
- <sup>91</sup> Harari, Sapiens 51.
- <sup>92</sup> Harari, Sapiens 115.
- 93 Harari, Sapiens 164.
- <sup>94</sup> Harari, Sapiens 272.
- 95 Harari, Sapiens 446-447.
- <sup>96</sup> Harari, 21 Lessons 1.
- <sup>97</sup> Harari, 21 Lessons 19.
- 98 Harari, 21 Lessons 24.

<sup>&</sup>lt;sup>88</sup> Harari, Sapiens 38.

underpins the 'clash of civilisations' thesis is false, [because] human groups – all the way from small tribes to huge civilisations – are *fundamentally different* from animal species, and historical conflicts *greatly differ* from natural selection processes" (e.a.)<sup>99</sup>; "social systems [...] are not genetically determined"<sup>100</sup>; "*Homo sapiens* is a post-truth species, whose power depends on creating and believing fictions... indeed, *Homo sapiens* conquered this planet thanks above all to the unique human ability *to create* and spread fictions"<sup>101</sup>; "humans *control* the world because they can cooperate better than any other animal, and they can cooperate so well because they *believe* in fictions"<sup>102</sup> (e.a.); "*Homo sapiens* is a storytelling animal [...] about the meaning of life" and "most successful stories remain *open-ended*"<sup>103</sup> (e.a.) contrary to determinism; "if by 'free will' you mean the freedom to do what you desire – then yes, humans have free will, but if by 'free will'you mean the freedom to choose what to desire – then no, humans have no free will"<sup>104</sup>; "on the psychological level, happiness depends on *expectations* rather than objective conditions; [...] rather, we become satisfied when reality

<sup>&</sup>lt;sup>99</sup> Harari, 21 Lessons 112.

<sup>&</sup>lt;sup>100</sup> Harari, 21 Lessons 112.

<sup>&</sup>lt;sup>101</sup> Harari, 21 Lessons 271-272. Sapiens' capacity for "to transmit information about things that do not exist at all" (Harari, Sapiens 27) forms in Harari's writings a basic characteristic, owned only by man. But while it is perfectly true that "only Sapiens can talk about entire kinds of entities that they have never seen, touched or smelled" (YN Harari, Sapiens 27), the classification of political institutions, money, human rights, and corporations into the category of these *fictions*, based solely on the principle of empirical knowledge, is particularly problematic, because it would lead to the consideration as *fictions* of some mathematical entities, and, implicitly, of all the sciences based on them. Regarding the inconsistency of such neopositivist considerations, Canadian anthropologist C.R. Hallpike wrote the following: "if Harari's test of reality is only what we can see, touch, or smell then mathematics, like truth, should also be a prime example of fiction... How 'real' in his sense are zero, negative numbers, irrational numbers like? or imaginary numbers like the square root of *-1*? And if mathematics is fiction, then so is the whole of science including the theory of relativity and Darwinian evolution" that Harari worships. C.R. Hallpike, A Response to Yuval Harari's Sapiens.

<sup>&</sup>lt;sup>102</sup> Harari, 21 Lessons 285.

<sup>&</sup>lt;sup>103</sup> Harari, 21 Lessons 313; 321.

<sup>&</sup>lt;sup>104</sup> Harari, 21 Lessons 348.

matches our *expectations*<sup>"105</sup> (e.a.); "if I believe in God at all, it is *my choice* to believe<sup>"106</sup>; "once we understand the biochemical system producing all these voices, *we can play* with the switches, turn up the volume here, lower it there<sup>"107</sup>; "silencing annoying noises inside your head seems like a wonderful idea, provided it enables you to finally hear your *deep authentic self*<sup>"108</sup>; "humanist dramas unfold when people have uncomfortable desires"<sup>109</sup>; "the big question facing humans isn't 'what is the meaning of life?' but rather, '*how do we get out* of suffering?'", because "when you give up all the fictional stories, you can observe reality with far greater clarity than before, and if you really *know the truth* about yourself and about the world, nothing can make you miserable", taking into account that "the most real thing in the world is *suffering*"<sup>110</sup> (e.a.). Related to this last idea, only a few pages late in the same book, Harari blatantly contradicts himself: "suffering is not an objective condition in the outside world"<sup>111</sup>.

All these ideas logically necessarily imply the existence of a free human agent (with different degrees of freedom) and conscious, absolutely different from the biological man described by Harari, who evades the principle of exclusivity of material causality through a component of his own ontological nature, following the principle still enunciated by Kant, both in the *Critique of Pure Reason* – "by freedom, on the contrary, in its cosmo-logical meaning, I understand the faculty of beginning a state spontaneously; its causality, therefore, does not depend, according to the law of nature, on another cause"<sup>112</sup> – and especially in the *Critique of Practical Reason*: "but, with regard to the same event, insofar as the acting person regards himself simultaneously as *noumenon* [...], he can contain a determining basis – of that causality according to natural

- <sup>108</sup> Harari, *Homo deus* 425.
- <sup>109</sup> Harari, *Homo deus* 426.
- <sup>110</sup> Harari, 21 Lessons 356.
- <sup>111</sup> Harari, 21 Lessons 363.
- <sup>112</sup> Kant, Critique of Pure Reason 432.

<sup>&</sup>lt;sup>105</sup> Harari, *Homo deus* 40.

<sup>&</sup>lt;sup>106</sup> Harari, *Homo deus* 275.

<sup>&</sup>lt;sup>107</sup> Harari, *Homo deus* 424.

laws – which is itself free from any natural law"<sup>113</sup>. Regardless of whether the above fragments speak directly of individual human nature or of political and social structures characteristic of the historical phenomenon, from the smallest to the largest (humanity), considered by the Israeli historian as true identity marks of sapiens, due to its unique capacity of cooperation and association by sharing common myths and fictions (money, religion or human rights), the concept of freedom becomes inevitable, so as not to jeopardize the very logical and even semantic content of the ideas presented. Then, it is well known that the social sciences "quite often use supra-individual entities, such as families, firms, and nations, either as an *auxiliary abbreviation* or as *a qualitatively secondary* approach – as Harari uses them –, to which they are obliged to resort due to the lack of relevant data or more refined theories"<sup>114</sup>, without renouncing in any way to the essential human capacity for personal self-determination. In contrast, of course, with Marxist-type historical materialism - according to which "higher-level, social and psychological phenomena, along with other apparently diverse phenomena, are all material<sup>"115</sup> – between whose ideological coordinates is the overall perspective of the Israeli professor.

<sup>&</sup>lt;sup>113</sup>I. Kant, Critique of Practical Reason, Indianapolis/Cambridge 2002, 145-146 (13.07.2020), http://www.hziee.edu.cn/uploadfile/2018/0612/20180612586964.pdf

<sup>&</sup>lt;sup>114</sup> Jon Elster, Comportamentul social. Fundamentele explicatiei in stiintele siciale, Bucharest 2013, 27. Popper vehemently criticizes the historical idea of the ireductibile complexity of social phenomena and entities – seen as "concrete natural entities like crowds of people, rather than abstract models built to interpret certain relationships abstracts specially chosen from individuals". Popper, *Mizeria istoricismului* 100. One of the "widespread sources of prejudice that social situations are more complex than physical ones seems to result from [...] the old belief that describing a social situation should involve describing the mental state, if not even the physical one of all the participants (or it should be reducible to them)". Popper, *Mizeria istoricismului* 100-110. This is a reductionism that Harari often uses: "he right way to go about under-standing the world is to reduce the high to the low". Sexton, A Reductionist History 114. In contrast, for the British philosopher of Austrian origin the way to understand human nature is *downward causation*, ie the influence of superstructures and higher *patterns* on substructures, the cognitive and ontological vector being from top to bottom.

<sup>&</sup>lt;sup>115</sup> Moser, Trout, *General Introduction* 5.

In addition to the few samples of biologicalizing anthropology and history in *Sapiens* already mentioned, in Harari's other two books there is a much wider range of materialistic concepts and categories used in describing the ontological essence of man, subsumed by the mind-brain relationship – the modern form of the older philosophical problem of the *body-soul* relationship. These exclusive approaches are found in a total discordance (intertextual) with psychological and socio-historical ideas, more scattered, presented above, which involve a partially non-biological or non-deterministic human constitution, but also in different degrees of gnoseological dissonance with each other. Basically, Harari models his discourse on *the mind* (including here the problem of *qualia*, consciousness and free will), oscillating inconsistently, but nonchalantly, between its less reductionist, even mysterious, meanings and its mechanistic meanings.

In a first phase, even if he excludes the idea of the existence of an eternal soul on the grounds that "evolution means change, and is incapable of producing everlasting entities" and "the closest thing we have to a human essence is [...] the DNA molecule"<sup>116</sup>, Harari claims that *Homo sapiens* "has a conscious mind" and "mind is something very different from soul"<sup>117</sup>. At the same time, the mind "nor is it an organ such as the eye or the brain", rather, "the mind is a flow of subjective experiences, such as pain, pleasure, anger and love", "the concrete reality we directly witness every moment"<sup>118</sup>. Subjective experiences are not reducible to the physical plane of neural circuits; "they are not empirical data, ... are not made of atoms, molecules, proteins or numbers", rather, "an experience is a subjective phenomenon that includes three main ingredients: sensations, emotions and thoughts"<sup>119</sup>. By asserting these paradigms, despite the use of some biological explanations – "consciousness is created by

<sup>&</sup>lt;sup>116</sup> Harari, *Homo deus* 123.

<sup>&</sup>lt;sup>117</sup> Harari, Homo deus 123.

<sup>&</sup>lt;sup>118</sup> Harari, *Homo deus* 123.

<sup>&</sup>lt;sup>119</sup> Harari, *Homo deus* 278. Elsewhere, Harari emphasizes even more the ontological autonomy of subjective experiences: "pain is pain, fear is fear, and love is love – even in the matrix. It doesn't matter if the fear you feel is inspired by a collection of atoms in the outside world or by electrical signals manipulated by a computer. The fear is still real". Y.N. Harari, *21 Lessons* 289. Therefore, following this logic, "we cannot see the mind through a microscope or a brain scanner". Harari, *21 Lessons* 365.

electrochemical reactions in the brain"<sup>120</sup> –, Harari places himself in the category of *emergentist* currents (or *functionalist*, if we take as a reference the association between electronic algorithms and bio-chemical algorithms produced by the brain - "computer of flesh" human) from the philosophy of mind, distinct from both dualistic conceptions and the theory of reductive materialism of the identity type, which he states more strongly, totally inconsistent, in the third part of the book Homo deus. More precisely, this first perspective of the Israeli professor is circumscribed, prima facie, to the anthropological model proposed by the Australian philosopher David Chalmers (1995) about the cognitive impenetrability and fundamental epistemological irreducibility of consciousness to physicalistic explanations, all the more so as Harari himself argues, paraphrasing Descartes, that the flow of consciousness "is the surest thing in the world"<sup>121</sup> that you cannot doubt. But, in relation to other texts in his writings<sup>122</sup>, we can conclude that the distinction of the mind from the brain, respectively of mental phenomena from neural ones is only a matter of time, meaning that eliminative (promissory) materialism best subsumes the meanings of *functionalism* and *emergentism* (provisional) from the above passages: "perhaps we will have a solid explanation in ten or fifty years"<sup>123</sup> and "maybe someday breakthroughs in neurobiology will enable us to explain communism and the crusades in strictly biochemical terms"  $^{124}$  – this being, indeed, a very strong mechanistic approach.

<sup>&</sup>lt;sup>120</sup> Harari, *Homo deus* 125.

<sup>&</sup>lt;sup>121</sup> Harari, *Homo deus* 123. "But consciousness seems to resist materialist explanation in a way that other phenomena do not". D. J. Chalmers, Consciousness and Its Place in Nature, in: D. J. Chlamers, *Philosophy of Mind. Classical and Contemporary Readings*, New York Oxford 2002, 248.

<sup>&</sup>lt;sup>122</sup> Regarding the neurobiological mechanisms for generating subjective phenomena, the Israeli professor acknowledges the temporary inability of current neuroscience, recognizing that "nobody has any idea how a congeries of biochemical reactions and electrical currents in the brain creates the subjective experience of pain, anger or love" (Harari, *Homo deus* 126), respectively that "the best scientists too are a long way from deciphering *the enigma* (e.a.) of mind and consciousness"; actually, they "don't know how a collection of electric brain signals creates subjective experiences" Harari, *Homo deus* 128.

<sup>&</sup>lt;sup>123</sup> Harari, *Homo deus* 126.

<sup>&</sup>lt;sup>124</sup> Harari, *Homo deus* 177.

From another point of view, discordant with the previous one, but also with the subsequent perspective, it can be noticed that some of the antireductive anthropological ideas in Harari's writings keep a rather explicit content from the doctrine of dialectical materialism that (co) generated them, without being able to establish with certainty whether the Israeli historian operates an ontological or a gnoseological distinction. What is certain is that human nature is analyzed in terms of the relationship between biology and culture – "in the case of modern history, scholars cannot avoid taking into account non-material factors such as ideology and culture"<sup>125</sup> –, a Hararian (equally inconsistent) replica of the central dichotomy of dialectical materialism: *matter-consciousness*, where the "cognitive fog" on the intimate ontological nature of consciousness and, implicitly, the nature of freedom<sup>126</sup> is only transferred above the historical and social processes on which its formation is attributed.

For the extreme physicalist pole of the conception of the mind, the following fragment from *Homo deus* – methodologically inconsistent with the Popperian-inspired principle recognized by Harari as the engine of the Scientific

<sup>&</sup>lt;sup>125</sup> Harari, *Sapiens* 100. "Biology is willing to tolerate a very wide spectrum of possibilities, [but] it's culture that obliges people to realise some possibilities while forbidding others". Harari, *Sapiens* 164. Also, the patterns of dialectical materialism emerge from the statements that "the mind is an object that is being shaped by history and biology", respectively that "fighting for liberty includes anything that frees people from social, biological and physical constraints" (Harari, *21 Lessons* 289-290; 347), but also from the assertion that "the humanities emphasise the crucial importance of intersubjective entities, which cannot be reduced to hormones and neuron". Harari, *Homo deus* 176.

<sup>&</sup>lt;sup>126</sup> Talking about the famous *Matrix* movie, Harari talks about the heroes' freedom to escape from the captivity of the electronic manipulations imposed by the dictator's megacomputer and the discovery of their authentic *self*. The philosophical problem that emerges from this film is that, just to understand that you are in the *Matrix*, you have to be, somehow, outside the determinism of the manipulative megacomputer. This is what Hegel already intuited, as the minimum expression of freedom, then taken over in the corpus of the doctrine of dialectical materialism: "Hegel was the first to present precisely the relationship between freedom and necessity. For him, freedom is *the understanding of necessity*: 'necessity is blind only insofar as it is not understood' ". F. Engels, Anti-Düring, in: K. Marx, F. Engels, *Opere*, vol. 20, Bucharest 1964, 112.

Revolution: "no concept, idea or theory is sacred and beyond challenge, [because] the things that we think we know could be proven wrong as we gain more knowledge"<sup>127</sup> – is emblematic:

"Over the last century, as scientists opened up the Sapiens black box, they discovered there neither soul, nor free will, nor 'self' - but only genes, hormones and neurons that obey the same physical and chemical laws governing the rest of reality. Today, when scholars ask why a man drew a knife and stabbed someone death, answering 'Because he chose to' doesn't cut the mustard. Instead, geneticists and brain scientists provide a much more detailed answer: 'He did it due to such-and-such electrochemical processes in the brain, which were shaped by a particular genetic make-up, which reflect ancient evolutionary pressures coupled with chance mutations.' The electrochemical brain processes that result in murder are either deterministic or random or a combination of both - but they are never free. For example, when a neuron fires an electric charge, this may either be a deterministic reaction to external stimuli, or it might be the outcome of a random event such as the spontaneous decomposition of a radioactive atom. Neither option leaves any room for free will... To the best of our scientific understanding (e.a.), determinism and randomness have divided the entire cake between them, leaving not even a crumb for 'freedom' "128.

<sup>&</sup>lt;sup>127</sup> Harari, Sapiens 214.

<sup>&</sup>lt;sup>128</sup> Harari, *Homo deus* 328-329. The incompatibility between the subatomic probabilistic phenomena and the individual *freedom* that Harari announces lacks both philosophical consistency and empirical basis. By its very definition, *freedom* means indeterminism, i.e. evasion from the action of natural determinism of the mechanistic type. Then, "we simply do not know to what extent explaining the operations of thought compels us to examine the *subcellular operations* of the brain" [K.V. Wilkes, Mind-Body, in: A Botez, (ed.), *Filosofia mentalului*, Bucureşti 1996, 214], to the level of quantum indeterminism, perfectly compatible with the possible metaphysical influence of an immaterial soul and the thesis of freedom. Such a *theoretical possibility* of the action of the spirit on matter was demonstrated by Sir John Eccles together with the physicist Frederik Beck in 1992, based on the phenomenon of *exocytosis*, encountered in the process of neurotransmission. Performing a quantum processing of exocytosis, Beck pointed out that "the probability of it occurring could be increased or decreased without this being *in any way a violation*.

Going along this line, "the life sciences undermine liberalism, arguing that the free individual is just a fictional tale concocted by an assembly of biochemical algorithms", respectively that "every moment, the biochemical mechanisms of the brain create a flash of experience, which immediately disappears; then more flashes appear and fade, appear and fade, in quick succession"<sup>129</sup>, without summing up in a lasting essence like *the self*. For this reason, Harari considers that "humans are not individuals – they are 'dividuals', i.e. humans are an assemblage of many different algorithms lacking a single inner voice or a single self"<sup>130</sup>, given that in a previous paragraph of the book *Homo deus* he spoke about "*my inner self*", seen as a subjective instance of relationship with the world: "if my inner self tells me to believe in God – then I believe"<sup>131</sup>.

In support of his thesis against free will, Harari refers to a laboratory experiment from the 1980s monitored by neuroimaging techniques, in which subjects placed in a huge brain scanner were asked to push on one of the

of the laws of energy conservation, because the masses involved in the phenomenon of exocytosis are sufficient small to enter the quantum uncertainties that exist". J. Staune, Oare existența noastră are vreun sens? O anchetă științifică și filosofică, Bucharest 2019, 337; F. Beck, J.C. Eccles, Quantum aspects of brain activity and the role of consciousness, Proceedings of the National Academy of Science USA, Biophysics, vol. 89, 1992, 11357-11361.

<sup>&</sup>lt;sup>129</sup> Harari, *Homo deus* 354.

<sup>&</sup>lt;sup>130</sup> Harari, *Homo deus* 383. Even in this anti-psychological key, the *narrator self* cannot be ignored as an epistemic subject of the act of knowledge – another proof of the inconsistency of Harari's anthropological vision. The fact that "something that cannot be divided or changed cannot have come into existence through natural selection" (Harari, *Homo deus* 121) cannot be a valid argument *per se*, because natural selection itself applied in the anthropological sphere is only a research hypothesis – "the most successful *metaphysical* research program", in his expression Karl Popper, empirically testable, however, in some cases. K. Popper, Selecția naturală și statutul său științific in: D. Miller (ed.), Karl R. Popper. *Filosofie socială și filosofia stiinței. Antologie*, Bucharest 2000, 249.

<sup>&</sup>lt;sup>131</sup> Harari, *Homo deus* 275. The same dissonance can be seen in his latest book, 21 Lessons for the 21st Century: "since humans are *individuals*, it is difficult to connect them to one another and to make sure that they are all up to date. In contrast, computers *aren't individuals*, and it is easy to integrate them into a single flexible network". Harari, 21 Lessons 32.

two switches available for them, whenever they wanted, without any prior programming. Following the experiment, it was found that "neural events in the brain indicating the person's decision begin from a few hundred milliseconds to a few seconds *before* the person is aware of this choice", so that "scientists observing neural activity in the brain can predict which switch the person will press well before the person actually does so, and even before the person is aware of their own intention"<sup>132</sup>. The conclusion expressed by the Israeli professor based on these neuro-scientific data, in the sense that "the decision to press either the right or left switch [...] it wasn't a *free choice*" or that it is wrong to believe "that if I want to press it, I *choose* to want", because "I don't *choose* my desires; I only *feel* them, and act accordingly"<sup>133</sup> – beyond the fact that it uses at least equally problematic concepts from the perspective of neuroscience (what does it mean *to feel* and *to act*?) –, has in no case a scientific character, as he suggests, but it is only an exclusive theoretical assumption, not validated in at least two of the three scientific sources quoted in support of it<sup>134</sup>.

For example, if the first reference article published in *Nature Neuroscience*<sup>135</sup> presents a series of strictly empirical-descriptive information about the functioning of some neuromotor mechanisms in a certain area of the brain, at different time intervals, in relation to the moment of realization of the decision to act, focusing on the unconscious side of the potential of preparation and without issuing philosophical judgments on personal *freedom*, in the second article quoted by Harari it is explicitly stated, still in summary, that "the role of conscious will would be not to initiate a specific voluntary act but rather

<sup>&</sup>lt;sup>132</sup> Harari, *Homo deus* 331.

<sup>&</sup>lt;sup>133</sup> Harari, *Homo deus* 331.

<sup>&</sup>lt;sup>134</sup> These are the studies of Chun Siong Soon *et al.*, Daniel Wegner and Benjamin Libet, mentioned in note 2 of chapter 8 of the book *Homo deus*. Y.N. Harari, *Homo deus* 331, 483. Even in D. Wegner's book, *The Illusion of Conscious Will* (2002), known for its anti-voluntary conception, he acknowledges, starting from the above experiment and B. Libet's analyzes, that "the common subject of many critics is the continual suspicion that conscious will has at least the same beginning as events in the brain". D. M. Wegner, *Iluzia voinței conștiente* Bucharest 2013, 74-75.

<sup>&</sup>lt;sup>135</sup> C. S. Soon et al., Unconscious determinants of free decisions in the human brain, *Nature Neuroscience*, 5, 2008, 543-545.

to select and control volitional outcome"<sup>136</sup> – aspect that blatantly contradicts the thesis of the lack of free will and natural determinism. A fortiori, at the end of the article, before multiple comments completely ignored by Harari, the American researcher shows that "it is important to emphasize that the present experimental findings and analysis do not exclude the potential for 'philosophically real' individual responsibility and free will"<sup>137</sup>. Last but not least, in his famous book *Mind Time. The Temporal Factor in Consciousness* (2004), Libet exhibits the essentially metaphysical character of determinism and non-determinism, showing that "both of these alternative views are speculative belief, unproven theories, in other words, unproven in relation to the existence of free will"<sup>138</sup>.

Harari also does not give up in his approach to this fundamental problem of the usual intertextual "coherence" since in a fragment of his last book – in total opposition to the physicalist fragment quoted above, where he leaves no room for any *freedom* – he recovers a part of the authentic meaning of Benjamin Libet's thesis: "humans obviously have a *will*, they have desires,

<sup>&</sup>lt;sup>136</sup> B. Libet, Unconscious Cerebral Initiative and the Role of Conscious Will in Voluntary Action, *The Behavioral and Brain Sciences*, 8, 1985, 529 Based on the same experiment, Eric R. Kandel, Nobel Laureate in Medicine in 2000, he concluded: "in reality, however, the [unconscious] activity of our brain precedes *the decision* to move, not the movement itself". Eric. R. Kande, *Mintea tulburata*, Iași 2020, 311.

<sup>&</sup>lt;sup>137</sup> Libet, Unconscious Cerebral Initiative 529. "The findings should therefore be taken not as being antagonistic to free will but rather as affecting the view of how free will might operate". Libet, Unconscious Cerebral Initiative 538.

<sup>&</sup>lt;sup>138</sup> B. Libet, *Mind Time. The Temporal Factor in Consciousness*, Cambridge Massachusetts 2004, 153. From the position of non-determinism, Libet postulates the same *theoretical* possibility of the existence of an immaterial mental action at the quantum level, such as that demonstrated by Beck and Eccles. The fact that physical events follow the natural laws at the macro level "does not exclude the possibility that physical events are susceptible to an external 'mental force' at the micro level, in a way that would not be observable or detectable", because "the actions of the mind may be at a level below that of the uncertainty allowed by quantum mechanics". Libet, *Mind Time* 154. The doctrine of materialism, viewed more as "desideratum for the natural sciences", and less that "independent hypothesis confirmed by natural science" is also *unscientific*. Moser, *Trout, General Introduction: Contemporary Materialism* 5.

and they *are* sometimes *free* to fulfil their desires"<sup>139</sup>, although they are not free to choose them properly. Of course, in order to be truly free, this freedom to fulfill your desires also means the freedom *to oppose* them<sup>140</sup>, that is, the "veto right" of the conscious will (supported by Libet and Kandel). Harari seems to temporarily acquire this thesis by resorting to the relationship between the hypothesis of innate homosexuality and its actual practice – "if I am sexually attracted to men, *I may be free to realise my fantasies*, but I am not free to feel an attraction to women instead <sup>141</sup>.

In the end, we can conclude that, although he prophesies from his first book raising people to the status of gods (*homo deus*) in the near future, Harari fails to explain to us what *man* means today, respectively what is its own identity. On the contrary, through the recurrent application of the patterns of materialism to individual human nature and the ontology of socio-historical phenomena, the construction of the Israeli professor, far from the consistency of a systemic vision, becomes fragile in many respects. The singular ontological essence of the *human* is simply pulverized in the epistemological concupiscence of repeated attempts of definition, which includes all ideational disharmonies, conceptual inaccuracies, categorical inconsistencies (discordancies), and sometimes logical contradictions (or retractions?) listed above.

<sup>&</sup>lt;sup>139</sup> Harari, 21 Lessons 348. The same idea is explained more plastically by Harari, as follows: "I don't tell the neurons when to fire", Harari, 21 Lessons 349. On closer examination, such a conclusion itself implies a certain degree of freedom, at least in Hegelian terms of *understanding necessity*. In other words, if, indeed, "I don't tell neurons when to fire", then this very statement cannot be made logically, because it would be itself determined by the random or deterministic excitation of neurons.

<sup>&</sup>lt;sup>140</sup> To say that people have free will, "if by 'free will' you mean the ability to act according to your desires" – (Harari, *Homo deus* 330), which, actually, we *don't choose* is at least another categorical inconsistency, if not a *contradictio in terminis*.

<sup>&</sup>lt;sup>141</sup> Harari, *21 Lessons* 348. Even this hypothesis presupposes a certain degree of freedom, distinct from strictly biological factors.