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## Separating Humanist and Scientific Culture is an Oxymoron\*



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ABSTRACT

### **A holistic view of the culture**

The separation of culture in two fields is discussed. Starting from the ancient Greece until twentieth century, several prize examples of polyhedric intellectuals have been reviewed according to a chronological criterion, in order to demonstrate that this separation is impossible and inappropriate. These examples support a holistic view of the culture.

**Keywords:** Western Culture - Islamic Culture - Jewish Culture - Epistemology

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## 1. Introduction

It would seem that the long-lasting debate as to whether culture should be defined by separating the humanities and the sciences was triggered by the fact that many of the discoveries made in the fields of physics and biology during the XX century were driven by the work of philosophers, and that many physicists and biologists considered their discoveries in terms of their philosophical consequences. It is a point of view that was embodied in the principle of indetermination of Werner Karl Heisenberg<sup>1</sup>, and further oil was poured on the flames when C.P. Snow published the two versions of his essay entitled “The two cultures” in 1959 and 1963<sup>2</sup>.

However, although it can be granted that the “scientific revolution” of the XVI and XVII centuries caused a radical shift in modern Western philosophy, it is not clear whether this should be considered a continuation or discontinuation of Humanism and the Renaissance<sup>3</sup>, and it is still an open question as to whether the prevalence of literary and philological interests during the Renaissance should be seen as “separating” the late medieval focus on the natural sciences from the “scientific revolution” itself.

During the Enlightenment, the monumental “Encyclopédie, ou Dictionnaire Raisonné des Sciences, des Arts et des Métiers” [The encyclopedia or rational dictionary of the sciences, arts, and occupations] (1751-1772) was jointly edited by Denis Diderot (a man of letters and a philosopher) and Jean-Baptiste Le Rond d’Alembert (a mathematician) with the aid of a group of other intellectuals, which suggested that it was possible for the “two cultures” to come together. However, towards the end of the XIX century, Wilhelm Dilthey returned to distinguishing “die Geisteswissenschaften” [the sciences of the spirit] and “die Naturwissenschaften” [the sciences of nature] in the Introduction and first and second parts of the first book of his “Einleitung zur Geisteswissenschaften”<sup>4</sup> [Introduction to the sciences of the spirit] (1883).

Delving more deeply into the vexata quaestio of whether the sciences and the humanities represent two different cultures as argued by C. P. Snow, I am beginning by noting that the ambiguously polysemic and indeterminable word “culture” was first used in its modern sense by the Latin orator Marcus Tullius Cicero in his “Tusculanae Disputationes” (Conversations in Tuscolo) (book 2, chapter 5, paragraph 13): “like the soul, culture is philosophy” (*cultura autem animi philosophia est*). It is also worth noting that, in 1882 (i.e. before Snow), Matthew Arnold published “Literature and science”<sup>5</sup> in which he criticised the dominion of a technical-scientific education, thus further indicating the Western tradition of dividing culture into two opposing parts<sup>6-8</sup>. However, my own view is that culture should be considered holistically, and the only dualism involved is culture vs. a lack of culture. Let me give some more examples in chronological sequence to explain what I mean further. The chosen examples are listed in chronological order, starting from the ancient Greeks.

## 2. Western culture

### 2.1. From fifth century B.C. till fifteenth century A.C.

Western philosophical and scientific thought has been greatly influenced by Plato's dialogue "Τίμαιος"<sup>9</sup> [Timaeus], which was the only one of his dialogues known in the Middle Ages, and covers nearly all of the principles of Platonic thought by bringing together theology, cosmogony, cosmology, astronomy, physics, ethics, biology, medicine, and optics.

Aristotle was undoubtedly the most important scientist and biologist of antiquity, but we should also never forget his paramount role in the history of Western philosophy. He contributed much to the natural sciences by providing the first classification of animals and, although he could not give detailed explanations of the functions of different organs, he realised that different organs of different animals may have similar functions<sup>10</sup>. Collectively called "De Animalibus" [On Animals] during and after the XVI century, his books include "Τῶν περὶ τὰ ζῷα ἱστοριῶν"<sup>10</sup> [Investigations Concerning Animals], "Περὶ ζῶων μορίων"<sup>10</sup> [On the Parts of Animals], and "Περὶ ζῶων γενέσεως"<sup>10</sup> [On the Generation of Animals]. He also wrote "Περὶ ζῶων κινήσεως"<sup>10</sup> [On Animal Movement], and "Περὶ γενέσεως καὶ φθορᾶς"<sup>11</sup> [On Generation and Corruption]. He also contributed to the decisive epistemological breakdown between the Hippocratic idea of medicine (mainly focused on patients and their disease) and the idea of the medical school of Kos (still active after Hippocrates' departure), which was mainly focused on understanding the natural state of the body and therefore human health<sup>12</sup>.

Seneca the Younger is best known as a philosopher on the basis of his "Dialogorum Libri" (Dialogues) and "Epistolae morales ad Lucilium" (Moral letters to Lucilius), but he also wrote "Naturales Quaestiones"<sup>13</sup> (Natural Questions), which not only provide a detailed summary of knowledge at the time, but were also specifically aimed at freeing his contemporaries of their fears and superstitions concerning natural phenomena<sup>14</sup>.

The principal medical publications of Marsilio Ficino were "De vita"<sup>15</sup> (On Life), particularly the first and second books (1489); the "Oratio de Laudibus Medicinae" (Speech in Praise of Medicine) in the fourth book of the "Epistolae"<sup>16</sup> (Letters); "Nobilitas, Utilitas et Usus Medicinae" (Nobility, Utility, and Use of Medicine) in the first book of the "Epistolae"<sup>17</sup>; and "Consilio contro la Pestilenza"<sup>18</sup> (Advice Against the Plague) (1481), which had the simultaneously practical and theoretical aims of preventing and treating the disease, and describing its causes, symptoms, and nature. As a physician-philosopher, Ficino introduced new ideas concerning the fundamental connection between treatments of the body and soul required by the medicine of the time.

In addition to being one of the founders (together with Brunelleschi) of Renaissance architecture in Florence, Leon Battista Alberti wrote a number of literary works:

“Libri Familie”<sup>19</sup> (On the Family), “Momus o del Principe”<sup>19</sup> (On the Prince), “De Iciarchia” (On Family and State Government), “Theogenius”<sup>19</sup>, and “Intercoenales”<sup>19</sup> (Tales to be Read Between the Different Courses of a Dinner).

It is hardly necessary to mention the polyhedric interests of Leonardo da Vinci, the archetypal genius of the Italian Renaissance whose studies included human anatomy, hydraulics, mathematics, optics, and the mechanism of bird flight<sup>20</sup>.

## 2.2. From sixteenth till twentieth century

Girolamo Fracastoro was a true Renaissance thinker whose eclectic interests included geology, philosophy, cosmogony, botany, physics, and geography<sup>21</sup>. However, his most pioneering work was in the field of infectious diseases: he not only wrote “De Contagione et Contagiosis Morbis”<sup>21</sup> (On contagion and contagious diseases) (1546), which described diseases such as typhus, syphilis, and leprosy, but was also the author of an epic poem entitled “Syphilis sive Morbus Gallicus”<sup>22</sup> (Syphilis or the French Disease) (1530), which greatly influenced the contemporary understanding of the pathogenesis and treatment of the disease. The idea of air-borne disease transmission was not new, but his theory that infectious diseases spread as a result of “seeds” being inhaled with the air or entering the body by means of physical contact was highly innovative. It may not have had a long-lasting influence on the medical community of his time, but returned to the fore when Koch and Pasteur demonstrated their experimental “germ theory”<sup>23</sup>.

François Rabelais was graduated in Medicine from the prestigious University of Montpellier, but he is known throughout the world for his books about Gargantua and Pantagruel. The first book was entitled “Les horribles et épouvantables faits et prouesses du très renommé Pantagruel, roy des Dipsodes, fils du géant Gargantua”<sup>24</sup> (The horrible and terrifying actions and exploits of the renowned Pantagruel, King of the Dipsodes, and son of the giant Gargantua) (1532). Although it was condemned as obscene by the Sorbonne

University in Paris, Pantagruel was a popular success and was followed by “La vie inestimable du grand Gargantua, père de Pantagruel”<sup>24</sup> (The inestimable life of the great Gargantua, father of Pantagruel) (1534), “Tiers livre des faitz et dictz héroïques du bon Pantagruel” (The third book of the heroic actions and deeds of good Pantagruel) (1545), and the “Quart livre des faitz et dictz heroïques du bon Pantagruel”<sup>24</sup> (1552), all of which offer a cunning mosaic of scholarly, literary, and scientific parody.

Galileo Galilei was not only a revolutionary physicist, but also an excellent writer, poet, and literary critic, who wrote a number of essays on Dante, Petrarch, Ariosto (he was an enthusiastic admirer of “Orlando Furioso”), and Torquato Tasso<sup>25</sup>. It is therefore no accident that John Milton, who met him when he was under house arrest in Arcetri, referred to him as “the Tuscan artist” (rather than a scientist) in “Paradise

Lost” (book I, line 288). In his “Dialogue concerning the two chief world systems, Ptolemaic and Copernican” (*Dialogo sopra i due massimi sistemi del mondo, tolemaico e copernicano*)<sup>26</sup> (1632), Galileo refers to himself as three different characters (Sagredo, Salviati, and Simplicio), a perspicacious stratagem typical of the theatre. However, the “Dialogo”<sup>26</sup> is not theatre in the strict sense of the word, but a means of disguising its scientific content in the form of a literary genre.

On 18 December 1629, René Descartes wrote in a letter to Père Marin Mersenne that he wanted to study anatomy and, in the famous *Lettre-Préface* [Letter-Preface] of “*Principia Philosophiae*”<sup>27</sup> (*Principles of Philosophy*) (1647), that philosophy is like a tree, whose roots are metaphysics, the trunk is physics, and the branches emerging from the trunk are all of the other sciences, which can be reduced to the main three of medicine, mechanics, and ethics.

*La philosophie est comme un arbre, don't les raciness sont la métaphysique, le tronc est la physique, et les branches qui sortent de ce tronc sont toutes les autres sciences, qui se réduisent à trois principals, à savoir la médecine, la mécanique et la morale.*

Descartes also frequently carried out animal vivisections and cadaver dissections in order to study the structure of living animals, concentrating on the heart and the circulation of blood<sup>28,29</sup>, (William Harvey published his “*Exercitatio Anatomica de Motu Cordis et Sanguinis in Animalibus*”<sup>30</sup> [An anatomical exercise on the motion of the heart and blood in animals] in 1628), and maintained an interest in biology and anatomy throughout his life. In the sixth part of the “*Discourse on the method of rightly conducting one’s reason and seeking truth in the sciences*” (*Discours de la Method pour Bien Conduire sa Raison et Chercher la Verité dans le Sciences*)<sup>31</sup> (1637), he wrote that the maintenance of health is without doubt the first good and the foundation of every other good in this life because even the spirit depends so much on temperament and the disposition of the organs in the body that, if it were possible to find any means of making men wiser and more able than they have been so far, I believe that it would need to be sought in medicine.

*La conservation de la santé.... est san doute le premier bien et le fondement de tous les autres bien de cette vie; car même l'esprit depend si fort du temperament, et de la disposition des organs du corps que, s'il est possible de trouver quelque moyen qui rende communement les hommes plus sages et plus habiles qu'ils n'ont été jusques ici, je crois que c'est dans la médecine qu'on doit le chercher*

The polyhedric interests of Blaise Pascal are illustrated by the fact that, in addition to his philosophical and theological works, he also wrote “*Essay pour le coniques*”<sup>32</sup> (*Essay on conics*) (1640), “*Expérience nouvelles touchant le vide*”<sup>32</sup> (*New experiences concerning vacuum*) (1647), “*Récit de la grande experience de l'équilibre des liqueurs*”<sup>32</sup> (*Account of the great experiment on the equilibrium of fluids*) (1648),

“*Traité de l’équilibre des liqueurs et de la pesanteur de la masse de l’air*”<sup>32</sup> (Treatise on the equilibrium of fluids and the weightiness of air) (1654), “*Traité du triangle arithmétique*”<sup>32</sup> (Treatise on the arithmetical triangle) (1654), “*Élément de géométrie*”<sup>32</sup> (Elements of geometry) (1657), and “*De l’esprit géométrique*”<sup>32</sup> (On the geometrical spirit) (1657). In all of these works, Pascal discussed at length the structure of science and the progress of scientific knowledge.

Daniel Defoe (born Daniel Foe, he later added the aristocratic-sounding “De”), the writer, trader, journalist, and pamphleteer, is world famous because of his “*The Life and Strange Surprising Adventures of Robinson Crusoe of York, Mariner*” (1719)<sup>33</sup>, but his first notable publication was “*An Essay upon Projects*”<sup>34</sup>, a series of proposals concerning social and economic improvements (1697). In it, he announced the beginning of the so-called “*Projecting Age*” and, like an architect, described community institutes and structures such as banks, street networks, training schools for troops, and an academy for women. The projecting plan made explicit in the “*Essay*”<sup>34</sup> essentially involved applying the methods of politics to the problems of a society troubled by wars, whereas “*Robinson Crusoe*”<sup>33</sup> implicitly applied a similar approach to the existential problems of a single man doomed by fate to live on a desert island, alone in a hostile environment and separated from society.

The French philosopher Jean Georges Cabanis had a degree in medicine and wrote a number of medical works, including “*Observations sur les Hôpitaux*” [Observations concerning hospitals] (1790), “*Du Degré de Certitude de la Médecine*”<sup>35</sup> (On the certainty of medicine) (1798), and “*Coulp d’Oeil sur les Révolutions et sur la Réforme de la Médecine*” (A survey of the revolution and the reform of medicine) (1804).

Immanuel Kant paid particular attention to scientific questions throughout his life, and discussed the contemporary problems of astronomy, physics, geophysics, cosmogony, and medicine. His first scientific work was “*Thoughts about the true evaluation of living forces and criticism of the demonstrations used by Mr. Leibniz and other scientists of mechanics in this dispute, together with some preliminary thoughts about the force of the body*” (*Gedanken von der wahren Schätzung des lebendigen Kräfte und Beurtheilung des Beweise, deren sich Herr von Leibniz und andere Mechaniker in dieser Streitsache bedient haben, nebst einigen vorhergehenden Betrachtungen, welche die Kraft der Körper überhaupt betreffen*)<sup>36</sup> (1746). This was followed by “*A universal history of the nature and theory of the heavens, or a study of the composition and mechanical origin of the whole system of the world according to Newton’s tenets*” (*Allgemeine Naturgeschichte und Theorie des Himmels oder Versuch von der Verfassung und dem mechanischem Ursprunge des ganzen Weltgebäudes nach Newtonischen Grundsätzen abgehandelt*)<sup>37</sup> (1755).

Interestingly, Kant also wrote about smallpox vaccinations in the first book of the second part of “*The metaphysics of moral*” (*Die Metaphysik der Sinne*)<sup>38</sup> (1797). Kant was interested in various human diseases, particularly those of a psychiatric nature,

including hypochondria, probably because he was a hypochondriac himself, as he wrote in the third part of “Conflict between the faculties” (Streit der Fakultäten)<sup>39</sup> (1798), dietetics (to lengthen life as much as possible), and sleep. Mental diseases were discussed in “An essay on mental diseases” (Versuch über die Krankheiten des Kopfes)<sup>40</sup> (1764), and in “Anthropology from a pragmatic point of view” (Anthropologie in pragmatischer Hinsicht)<sup>41</sup> (1797), in which he stated that the unique feature of madness is the loss of common sense (sensus communis) and its replacement by a logical personal sense (sensus privatus).

*Das einzige allgemeine Merkmal der Verrücktheit ist der Verlust des Gemeinsinnes (sensus communis), und der dagegen eintretende logische Eigensinn (sensus privatus).*

It must be emphasised that Kant never neglected the problem of the embodiment of reason. As the subject of any knowledge is a human being, there is a mandatory connection between the mind and the body. It is therefore no accident that “De Medicina Corporis, quae Philosophorum est”<sup>42</sup> (On retrieving the body, which belongs to philosophers) (1786) begins by recalling the Latin saw “Curandum esse, ut sit mens sana in corpore sano” (Care should be taken to ensure a healthy mind in a healthy body). The two sources of knowledge, which he called “Erkenntnisquelle” (sources of knowledge), must be kept separate and cannot be reduced to one.

Kant can be considered one of the first epistemologists<sup>43</sup> as his philosophy represented a new epistemological perspective in which the intellect becomes the lawmaker of nature because it does not get its laws from nature but imposes them on nature. Kant’s most important epistemological works are: “Gedanken von der wahren Schätzung der lebendigen Kräfte”<sup>36</sup> “Allgemeine Naturgeschichte und Theorie des Himmels”<sup>37</sup>; and “Metaphysical foundation of natural science” (Metaphysische Anfangsgründe der Naturwissenschaft)<sup>44</sup> (1786).

Although his celebrity is indisputably linked to his literary work, Wolfgang von Goethe was interested in a number of the natural sciences for nearly fifty years of his life, and his scientific works cannot be considered occasional forays into the non-literary domain. From a scientific point of view, his most famous works are undoubtedly “The metamorphosis of plants” (Die Metamorphose der Pflanzen)<sup>45</sup> (1790) and “Theory of colours” (Farbenlehre)<sup>46</sup> (1810), both of which were influenced by Goethe’s two-step “Italian Journey” (Italienische Reise)<sup>47</sup>.

In his autobiography “On my life. poetry and truth” (Aus meinem Leben. Dichtung und Wahrheit)<sup>48</sup> (1811-1814, 1833), Goethe emphasised that his interest in investigating natural phenomena began in his childhood. He called himself Liebhaber der Naturlehre (a nature lover) in his short “Description of the intermediate bone of several animals in relation to the current subdivision and terminology” (Beschreibung des Zwischenknochens mehrerer Tiere bezüglich auf die beliebte Einteilung und Terminologie)<sup>49,50</sup> (1786). Moreover, the close link between his literary activities and



his love of the natural sciences can be seen in the autobiographical comments contained in “Books about morphology” (Die Hefte zur Morphologie)<sup>49,50</sup> (1817-1824). Göthe wrote in “The fate of a pamphlet” (Schicksal der Druckschrift) that a similar song was repeated to me from various sides; nobody wants to recognise that science and poetry can be reconciled. It has been forgotten that science developed from poetry and nobody thinks that the two can meet as friends during changing times and thus reach a natural advantage at a higher level.

*Von anderen Seiten her vernahm ich ähnliche Klänge, niergends wollte man zugeben, daß Wissenschaft und Poesie vereinbar seien. Man vergaß, daß Wissenschaft sich aus Poesie entwickelt habe, man bedachte nicht, daß, nach einem Umschwung von Zeiten, beide sich wieder freundlich, zu beiderseitigen Vorteil auf höherer Stelle, gar wohl wieder begegnen könnten.*

In the same way that Galileo can be seen as a scientist-poet, Giacomo Leopardi can be seen as a poet-scientist. Like Galileo, Leopardi was aided by the fact that the library of his father was not limited to literary subjects, and his interest in the scientific world was intense, highly precocious, and lasted throughout his albeit short life. He wrote “Compendium of natural history” (Compendio di Storia Naturale) (1812) and “Essay on chemistry and natural history” (Saggio di Chimica e Storia Naturale)<sup>51</sup> (1812) when he was still young, and his “History of astronomy” (Storia dell’Astronomia)<sup>52</sup> was published posthumously in 1888. It is therefore no accident that three of his most famous cantos, “Memories” (Le Ricordanze)<sup>53</sup>, “Nocturnal chant of a wandering Asian shepherd” (Canto Notturmo di un Pastore Errante dell’Asia)<sup>53</sup>, which were both composed between 1829 and 1830, and “The waning of the moon” (Il Tramonto della Luna)<sup>53</sup> (1836), begin by referring to the stars and the moon, and his love for astronomy is also reflected in “Dialogue between the earth and the moon” (Dialogo della terra e della luna)<sup>54</sup> (1824).

The myth that Leopardi was against science is disproved by his writing in “Zibaldone”<sup>55</sup> (No. 115) that our regeneration depends on what can be called an “ultra-philosophy”, which brings us closer to nature by giving us a full and intimate knowledge of things.

*La nostra rigenerazione dipende da una, per così dire, ultrafilosofia, che conoscendo l’intero e l’intimo delle cose, ci riavvicini alla natura.*

It is likely that neither science nor poetry will change the fate of man, but both should nevertheless collaborate and join forces in order to ease human suffering.

### 3. Islamic and Jewish culture

From eleventh till thirteenth century

Al-Fārābī was one of the most important Muslim philosophers, but also wrote about mathematics, astronomy, music, and medicine. In “Catalogue of the sciences” (De



Scientiis)<sup>56</sup> (“Iḥṣā’ al-‘ulūm”), he created a new classification model that integrated the Koranic and philosophical sciences but, surprisingly, did not include medicine, although it was mentioned many times.

Avicenna (the Latinised version of the Arabic patronym Ibn Sīnā) was an outstanding physician, eminent scientist, philosopher, astronomer, and poet of medieval Islam. He is now famous mainly because of two works: “The canon of medicine” (Al-Qānūn fī al-Ṭibb)<sup>57</sup> (1019) and “The book of healing” (Kitāb al-Šifā’)<sup>58</sup>. His thought was influenced by al-Fārābī and synthesises Aristotelian philosophy, Galenic medicine, and an Islamic overview of the world. His *The Canon of Medicine*<sup>57</sup> was used as the standard medical textbook throughout Europe and the Islamic world for many centuries.

Averroes (Ibn Rušhd, modified to Aben Roshd and then transformed into its Latin form of Averrois) was a Spanish Islamic philosopher, jurist, astronomer, and physician born in al-Andalus (Andalusia). In addition to a number of philosophical writings and numerous commentaries on most of Aristotle’s works, he wrote two important medical books: “Textbook of the general principles of medicine” (Kitāb al-Kulliyāt fī l-Ṭibb) (a distorted version of the original “Colliget”) (about 1162), classically used in Europe for many centuries, and “Urjuzah fī al-Ṭibb”, a commentary on Avicenna’s medical poem “Cantica”.

Avicenna wrote that “medicine is the maintenance of health and the cure of diseases” (*medicina est conservatio sanitatis et curatio aegritudinum*); Averroes wrote that “in this art (i.e. medicine), reason is not sufficient without experiment nor experiment without reason: both are simultaneously required” (*non sufficit in hac arte ratio sine experimento neque experimentum sine ratione: sed utrumque exigitur insimul*).

Moses Maimonides (a Spanish transformation of his original name, Mòscé ben Maimòn) was an Andalusian Jewish philosopher, physician, and jurist<sup>59</sup>. His main medical works are “Textbook of asthma” (Maqāla fī l-rabw); “Textbook of the health regimen” (Maqāla fī tadhīr al-šihḥa), a precursor of other “Regimina Sanitatis” in Western medicine; and “Textbook of poisons and antidotes of mortal drugs” (Maqāla fī l-sumūm wa-l-mutaḥarriz min al-adwiyya al-qitalā’)<sup>60,61</sup>. In the textbook of asthma, he noted that country air is much better for the lungs than town air.

#### 4. Conclusions

It is worth pointing out that ancient Greek philosophers were also interested in the natural sciences because both were seen as part of the same whole, and the question of “two cultures” only began to emerge with the development and discoveries of the natural sciences<sup>62</sup>. However, philosophers such as Giambattista Vico<sup>63</sup>, Max Scheler<sup>64</sup>, Edmund Husserl<sup>65,66</sup>, Benedetto Croce<sup>67</sup> and Martin Heidegger<sup>68</sup> depreciated the world of the sciences. For example, Husserl wrote in the second chapter of “Die Krisis der Europäischen Wissenschaften<sup>69</sup>” that the simple sciences of facts produce simple men of facts.... In the emergency situations of life - so we hear - this

science does not say anything to us. It just removes the key questions that are the most burning for human beings who feel that they have been left to their own fates in our tormented times.

*Bloße Tatsachenwissenschaften machen bloße Tatsachenmenschen. ...In unserer Lebensnot –so hören wir- hat diese Wissenschaft uns nicht zu sagen. Gerade die Fragen schließt sie prinzipiell aus, die für den in unseren unseligen Zeiten den schicksalvollsten Umwälzungen preisgegebenen Menschen die brennenden sind.*

However, the outstanding advances of physics (thermodynamics, general and special relativity, and quantum mechanics) and the natural sciences (the structure of nucleic acids, genetics, and molecular biology) in the 19th and 20th centuries seemed to indicate the prevalence of the sciences over the humanities.

Medicine straddles the two fields insofar as it is both naturalistic aspect and humanistic (in the anthropological sense of the word). It therefore simultaneously looks in two apparently different directions: the sciences of nature (die Naturwissenschaften according to Dilthey) and those of the spirit (die Geisteswissenschaften)<sup>4</sup>.

Taken together, human knowledge is a single whole that cannot be limited to the sciences or the humanities alone. The fact that reductionism has prevailed in both fields does not prevent us from considering culture holistically. Each of us must inevitably choose the principal field of our activities, but this does not mean totally excluding the other. In the words of the Latin comedy “The self-punisher” written by Terence: “I am a man, and so nothing human is alien to me”<sup>5</sup> (2nd century BC). Terence belonged to the cultural “Circle of the Scipioni” in ancient Rome for whom the key word was “Humanity” (humanitas), i.e. man considered from every point of view in accordance with stoic philosophy.

*Publius Terentius Afer; “Homo sum: humani nihil a me alieno puto”, “Heautontimorumenos” (act 1, scene 1, line 77).*

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