Universality and Occidental Reason

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Introduction

Occidental Reason is usually understood as the type of thought that was originated in Ancient Greece; it was extended through the Hellenic/Roman world and was developed in the Occidental Culture of the Middle Ages; it continues throughout modern times. Strictly speaking, if the word "Occidental" refers specifically to the Occidental Culture—in contrast to the worlds of Greece or Rome—it is no less certain that the idea of *logos* arose with the Ionians of the 7th and 6th centuries BC; this idea was basically absorbed by the Occidental Culture. Thus, Occidental Reason is nothing more than the continuation

of the Hellenic *logos*, although incorporating progress in countless sectors at the logical and mathematical levels, from Pierre de la Ramée (1515–1572) to Gottlob Frege (1848–1925), as well as Kurt Godel (1906–1978)—with his *Undecidability Theorem* (1931).

The word "Universality" is related to the status of the universal, which is a concept with two distinct meanings: ontological and logical. In an ontological sense, the universal refers to the scope of a specific genre of all the species or modalities belonging to such category. In its more widely accepted meaning, this genre is the Universe itself, meaning the set of astral bodies or, more generically, everything that exists in space-time.

In a narrower sense, such as when talking about Universal History, we refer to the set of events that occurred to the human race from Paleolithic times onwards.

In its logical acceptance, the universal—more properly used in the plural: the universals—are generic ideas: man, animal, stone. All men are contained within the idea of man; just as all animals and all stones are contained within the ideas of animal and stone, respectively.

Plato—within his Theory of Ideas—understood it as incorporeal substances; the corresponding rebuttal was made by Aristotle, who envisioned ideas as mental abstractions; a dispute was built up to shape medieval thought through the 13th century, known as the dispute of universal ideas.

There are three core concepts behind the explanation of these universal ideas: Realism, Nominalism and Conceptualism. According to Plato, the Realists understood universal ideas as incorporeal substances, learned as such through understanding. Outstanding among the Realists, are John Scotus Erigenus (810–877), St. Anselm (1033–1109) and William of Champeaux (1070–1121). They were opposed by the Nominalists, who conceived the universals as simple generic terms, or mere words (*flatus voci*). Outstanding among them, are Roscelin of Compiègne (1050–1120) and William of Occam (1300–1347), continuing a line already upheld by Boethius (480–524) and Marcianus Capella (late 4th and early 5th centuries AD).

This dispute was settled by Peter Abelard (1079–1143), who argued about the understanding of the universals, which would be adopted by the High Scholastics, known as Conceptualistic. Abelard showed that the word (vox) is a set of sounds that only acquires meaning and becomes a predicate (*sermon*) through conceptual thought (*conceptus*). Thus, the universal is the conceptual predicate.

Without entering any further into the logical aspect of the issue, it is merely mentioned that, according to Kant—as shown in the *Prolegomena to Any Future Metaphysics*—the necessary universality of a position depends on its objective validity.

Several universes were considered in ontological terms and may be conceptualized from the Universe, as such to the universes of the four kingdoms (mineral, vegetable, animal and human); and, with regard to the human, its two main fields: anthropology and history. In this succinct discussion of universality, grounded on Occidental Reason, a brief analysis is set forth, which concerns the cosmic, anthropological and historical universes.

Cosmic Universe

Human understanding of the cosmos has traveled far in the course of its evolution, from the geocentric concepts of Ancient Greece to the heliocentric revolution of Nicholas Copernicus (1473–1543), continuing through the universes of Newton and Laplace, to the universes of Einstein and Gamow.

Contemporary cosmology distinguishes the total universe (whether existing in a single universe or in several universes) from the visible universe that is consequently cognizable, meaning that its light may reach us. As mentioned in my most recent book about *The Position of Men in the Cosmos* (*O Posto do Homem no Cosmos*, São Paulo, Paz e Terra, 2006), this has a horizon of thirty billion light years, encompassing some ten billion galaxies, each one with around a hundred billion stars. This universe is quite empty, with a density of 10–11 g/cm^3,

a length of around 1,026m and a mass of approximately 1,053 kg. It encompasses a set of sub-atomic, atomic and molecular units that constitute the material-energy complex, driven by four fundamental forces: gravity and electromagnetism, as well as light and heavy nuclear power.

The universe is subject to three key constants: (1) the speed of light in a vacuum, at 300,000 km/s; (2) the Hubble Constant; and (3) the Einstein Constant in its modified form. The speed of light is constant, regardless of the Universality and Occidental Reason speed of its source. Such speed constitutes the maximum limit of any possible speed in the cosmos. The Hubble Constant is designated by the letter H, and constitutes the ratio between the velocity (V) with which two galaxies increase the distance (D) between them. This is expressed through the equation H = V/D and is estimated at around 73 kilometers per megaparsec, with one megaparsec (Mpc) equivalent to just over three million light years.

The cosmological constant has been subject to several construal since it was introduced by Einstein, who used it to explain why the stars do not hurl themselves against each other. With Hubble's discoveries showing that the universe is expanding rapidly, Einstein cancelled his constant hypothesis. However, he noted that the expansion of the universe also requires a repelling force, which is deemed to be dark energy.

The confirmation of this energy and other observations led to the acknowledgement that there is only an

insignificant proportion of normal non-luminous matter in the universe. Its composition currently complies with the following table:

Components of the Universe	%
Dark energy	71
Dark matter	23
Non-luminous matter	3
Luminous matter	0.995
Radiation	0.005
Total	**100**

How did the universe begin? There is a widespread agreement today about the Big Bang theory, which was presented by George Gamow, in the late 1940s. According to this hypothesis, around 13.7 billion years ago, a primordial explosion blasted the universe that we know today into space; although, initially in the form of a massive radiation. The expansion resulting from this explosion was very fast, according to Alan Guth, due to an initial unfurling process that doubled the universe every 10–33 seconds, resulting in an expansion of 3 x 1,041.

The question about the Big Bang theory is: how and why did such explosion take place? Only afterwards did space and time begin to exist and this constitutes the reason why the Big Bang occurred completely blank. Among the many hypotheses about this matter, the most solidly-grounded one seems to be that of the

cyclic theory, set forth by Archibald Wheeler (1953) and Andrei Linde. According to such theory, the universe consists of an endless process of explosion, expansion and concentration: a Big Crunch followed by another Big Bang, with each Big Crunch eliminating the entropy of the previous cycle. This leads back to the views of Democritus in the 5th century BC.

Anthropological Universe

The anthropological universe is that of the human being in time and space. As mentioned in my *Critical Study of History* (*Um Estudo Crítico da História*, two volumes, Paz e Terra, 2001) and the Position of Man in the Cosmos (*O Posto do Homem no Cosmos*, Paz e Terra, 2006):

> Human evolution began some four million years Ago with the Australopithecus species. From this link between man and the anthropoid primates, four species emerged successively: *Homo habilis*, some two million years ago; *Homo erectus*, around one million years ago; *Neanderthal Man*, some 200,000 years ago, and finally modern man, *Cro-Magnon Man*, some 70,000 years ago. (*O Posto do Homem no Cosmos*, pages 95–6.)
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> As shown by Yves Coppens,[1] the roots of the hominization process is a remote one, stretching back to a massive geological accident that took place some eight million years ago, when a vast fault running thousands of kilometers North to South split a broad strip of East Africa off from the rest of the continent. This separation considerably altered its rainfall system, remaining unchanged in West Africa, but becoming far drier along this Eastern strip. As a result of this reduction in rainfall, the Eastern forests began to vanish and were replaced by vast savannas. Anthropoid primates lived in both regions. Those living in the Western areas continued their arboreal lives, while tho-

> se on the East of the gorge were forced to adapt to life on the open savannas, where the survival of their species depended on gradually attaining an erect stance, which offered the all-round views needed to seek food and flee from predators. This bipedal condition had extremely important consequences: a larger brain, hands and arms released for new purposes, and evolution to the status of omnivores. This launched the hominization process. (*O Posto do Homem no Cosmos*, page 97.)

From this original enclave in a smallish area of East Africa, south of the Red Sea, human evolution moved steadily ahead over time, through the successive macro stages of the Paleolithic, Neolithic and Bronze Ages, with the concomitant urban revolution and the appearance of the great early cultures, extending through to the Iron Age. In terms of space, the territorial boundaries of human beings expanded tremendously over a lengthy period of time, from *Homo erectus* onwards, finally colonizing every continent. This geo-climatic diversification resulted in the formation of the various human races through local adaptations of the dark pigmentation of the early hominids. Within each of these macro-stages, it also resulted in vast cultural diversification.

By the end of the 14th century, humankind was geo-culturally diverse, dispersed and split into the massive blocs formed by Africa, Europe, Asia, Oceania and the Americas. As Vasco da Gama rounded the Horn of Africa in quest of India, European trade routes spread across the globe, reaching North America with Columbus, and South America with Cabral. The Trade Revolution of the16th–18th centuries led to the initial wave of world-

wide unification. From this period onwards, the first global differences in income levels began to appear and favored nations engaged in shipping and long-haul trade, initially in the Iberian Peninsula, and soon followed by the French, the British and the Dutch, to the detriment of the Asians.

The second massive wave of globalization began in England during the late 18th century, with the Industrial Revolution, extending through to the 20th century. If the Trade Revolution doubled the income levels of the peoples that triggered it, compared to income levels in the great civilizations of Asia, the Industrial Revolution ushered in a tenfold gap (or more) between the industrialized nations and those that remained agrarian. This is the root of the striking differences between the central and peripheral nations, widening exponentially with the Technological Revolution of the 20th century.

These successive technological stages have resulted in today's massive differences in the social, economic and cultural levels of humankind, divided into four major groups:

1. the developed nations, including those living in Europe and North America, members of the British Commonwealth, Japan and incipiently China;
2. the underdeveloped countries, including Southeast Asia, Latin America, India and South Africa;
3. the late developers, including much of Africa; and

4. the primitives, encompassing tribes still clinging to their traditional lifestyles in many parts of the world.

Blurry differentiation between human nature and the human condition has prompted many thinkers—particularly the Existentialists—to urge the theory, which says that man has no nature, but is merely a project of man, as affirmed by Ortega and Sartre, among others. In fact, the human being—like all species—has a fixed and permanent nature that has been reproduced through heredity since the days of Cro-Magnon Man. What varies tremendously is the human condition, meaning the many different ways in which people relate to the world, to other human beings and to themselves.

As indicated in my recent Brief Essay on Man (Breve Ensaio sobre o Homem), there are many different paths through which the human condition is developed. Thus, concerning the relationship between man and the world, it is important to distinguish two major groups, based on how man conceives himself as an object within the world (Cosmological Civilizations), or views the world as an object (Rational Civilizations). Regarding the links between an individual person and other human beings, family ties must be distinguished from their social and historical counterparts. Concerning man's relationship to himself, there is a difference between cultures with no clear self-awareness, such as the cosmological societies, and those endowed with self-awareness, such as the civilization of Ancient Greece.

The globalization process ushers in the steady homogenization of the human condition, tending result in the planetary man. Over the long term (if history will offer this to the human species), the new living conditions of the mass technology society will tend to impose adaptive influences on human nature, just as happened for aeons in the course of the hominization process.

During an incomparably briefer period, man is now faced by two major constraints on current lifestyles. One is related to technological civilization, with the impossibility of extending to all peoples, the extremely demanding consumption levels of the highly developed societies, due to physical constraints. Even more serious, the other consists of the impossibility of forging ahead with the current standards of industrial civilization at the turn of the millennium, due to the depletion of many rare minerals required by modern production processes.[2] Without decisive technological innovations—not even current on drawing boards—that would lead to the substitution of the relatively scarce and non-renewable materials by other materials or processes, industrial civilization might well grind to a halt during the final third of the 21st century.

Historical Universe

During the first decade of the 21st century, the world faced a crucial alternative: either to consolidate the supremacy of the USA into a Universal Empire, or to establish a new bipolar world, through the consolidation of the development of China.

There are significant indications favoring the second option. Particularly under the Bush Administration, but for reasons that extend well beyond its scope, the USA has not been able to draw up an international project that is attractive to other countries, and has consequently triggered stubborn resistance throughout its "provinces." Although China offers the world no alternative to the predominance of the USA in any universal sense, this Eastern nation is endowed with ample self-sustainability, backed by startling development capacity. Its annual growth rates have been of around 10% for the past thirty years; nowadays, is the fourth among the world's major economies and is apparently on the way to moving into first place in a not-too-distant future. The main difference between China and the USA lies in the fact that the validation of the international preponderance of the latter depends on the international validity of its project, which does not apply to China, as its international projection depends only on its domestic and international self-sustainability, which has every sign of continuing. Strictly speaking, China is not an international alternative to the USA, but rather a bulwark against its consolidation as a global empire.

The assumed consolidation of China's economic weight will lead the world into a new and dangerous bipolarity, not unlike the Cold War between the USA and the USSR. This new bipolarization may even expand into a West x East antagonism. This might create a long drawn-out deadlock, due to the resistance of the Asian

mindset to international characteristics and validation. However, if the effects of a stand-off between China and the USA—which seems quite likely—were to counterbalance the international power and clout of the latter, the outcome of this new bipolarization would also tend to pave the way for new international influences flowing from Europe and Latin America. Notwithstanding, the risks inherent to this situation, a strategic bipolarity between China and the USA would tend to lead the world towards a fertile cultural and economic multi-polarity.

The extremely serious risks lurking in the formation of a new strategic bipolarity should not be underestimated, as the death-dealing capacities of these two super-powers will be exponentially incomparable to the clashes that punctuated the bipolarism between the USA and the USSR. However, regarding the deliberate deployment of this overkill capacity, the two-way constraints that prevailed during the Cold War must still be borne in mind. Mirroring the fairly recent past, the main risk for the future is that unforeseen circumstances may cause the strike button to be pressed inadvertently, resulting in a nuclear hecatomb.

Accepting the hypothesis—which is rationally more likely—of reciprocal deterrence in the probable case of a new global bipolarity, the resulting situation, on the one hand, will tend to result in the long-term formation of a wary peace, under the aegis of which many different types of co-existence will develop, gradually becoming institutional. If widespread slaughter is avoided, either

one of these superpowers will overwhelm the other over the long term, or the world will move towards increasingly institutionalized forms of a *Pax universalis*, as foreseen by Kant during the late 18th century.

The main problem arising under the aegis of this probable new bipolarity is the type of society developing at each pole. Without entering further into this important issue, it is worthwhile noting that the hyper-consumerism of the contemporary society is not sustainable over the long term. The sustainability of a society depends on a high level of internalized values that are compatible with civilized ways of living together—and this certainly does not apply to today's hyper-consumerist approach. What might correct this intransigent greed for goods? A return to traditional religious beliefs seems unlikely. Among other possibilities, the most feasible seems to be the appearance of a new humanism, socially oriented and environmentally aware. This new humanism is apparent in the views of leading contemporary thinkers, from Karl Jaspers and Cassirer, to Habermas. Will this project of a new humanism develop into the mainspring of the society of the future? In this or other ways, society is dependent on the issue of a new transcendental substratum, in parallel to the establishment of a *Pax universalis*.

Notes

1. Yves Coppens, *Pré-ambules*, Paris: Poches Edile Jacob, 2001, page 172.
2. Petroleum, uranium, molybdenum, tungsten, cobalt, copper, lead and zinc.