EXISTENCE AND TRANSCENDENCE

An Anti-Faustian Essay in Philosophical Anthropology

VICTOR SEGESVARY

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PUBLISHER'S PREFACE

Today we publish two more works of Victor Segesvary. In January this year we commenced the publishing of his reach œuvre with the '"Dialogue of Civilizations" (both the original English version and the Hungarian translation).

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The Hague (Holland), April 19, 2004

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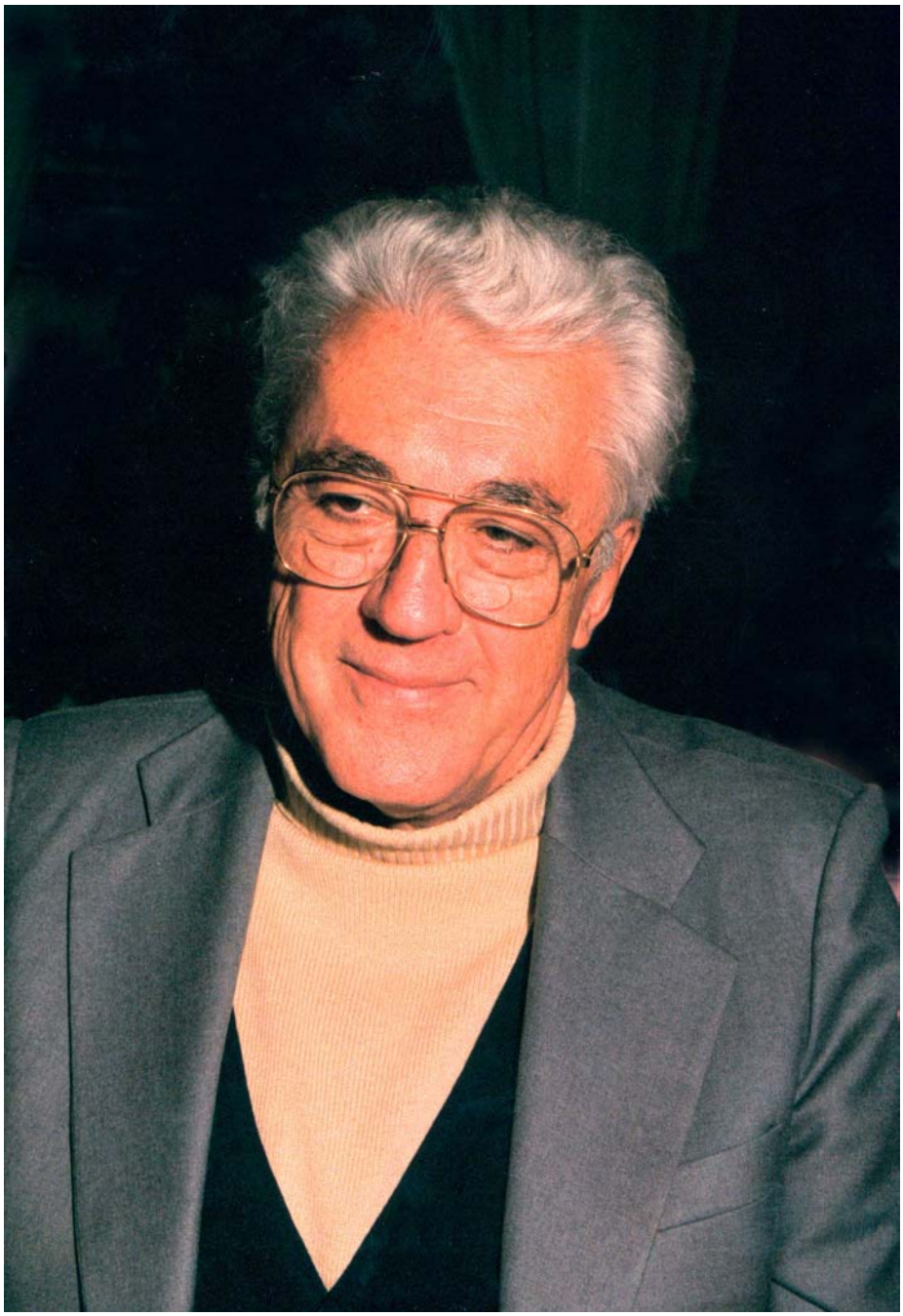

Victor Segesvary

TO MY BELOVED HUNGARY

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PREFACE

I was intrigued, since my youth, by the mind-body problem and by the relationship between the biological and cultural components of human existence. Refusing all sorts of reductionisms, from the idealistic through the materialistic to the physicalist, my conviction became stronger and stronger with the years passing, that there must be a possibility to eliminate these one-sided, exclusive points of view and to formulate a holistic approach integrating both components of our lives. That explains my efforts to clarify this fundamental problem of philosophical anthropology.

To ponder this question was made even more necessary as I lived in different continents and in widely different civilizational worlds, making me to comprehend the inevitability of human pluralism (with, as its corollary, contextualism), and leading me to realize the extraordinary importance of cultural conditioning in the communities in which men live around the globe. The result of this reflection was, thus, a logical outcome of experiencing cultural pluralism during more than a quarter of a century; this experience convinced me that biological evolution alone could not explain the wonderful variety and extraordinary richness of human existence. I came to believe that there must be an intricate interdependence between the biological and cultural foundations of our lives, -- a unique characteristic of man. I have, therefore, written this study to explain, from my particular perspective, the plurality of human worlds.

I would like to note that any and all references made in the text to persons as 'he', 'him', and the like, are a matter of convenience and should thus be understood as gender-neutral terms. All ideas expressed, all conclusions made in the reflections hereafter are my own, and I alone am responsible for them.

I dedicated this book to the country, Hungary, in which I was born, raised, and where I lived the first twenty-seven years of my life. Though I live since more than four decades abroad, I never lost a profound attachment to my roots, and remained for the whole of my life anchored in the culture in which I was brought up.

As always, I feel a profound gratitude towards my wife whose comprehension and help facilitated to carry out my research and to accomplish the writing of this book.

INTRODUCTION

I wrote this essay to try to find my way out of the bewildering confusion which reigns in our minds at the end of this millenium concerning the true nature of man. Like in all other great civilizations, we passed in the Western culture through all phases of reflexive thought about this most difficult subject – idealistic and teleological, realistic and empirical, religious and physicalist – to crown all these efforts, or so it seems, by adopting a position so nihilistic and, at the same time, so flat that one wonders whether it was worth for philosophers and scientists to go through all the trouble. I mean by this nihilistic and intellectually utmostly flat explanation of man's nature today's extravagant and extreme physicalism, best characterized perhaps by the expression used by Paul Churchland who designates his neuroscientifically-based views as eliminative materialism. To these nihilistic and totally reductionist theories belongs also the famous sociobiology, which eliminates with its *culturgens* anything non-physical from human nature and, first of all, the most outstanding of human creations, – culture. There could be nothing so incredibly unbelievable and stunning for the normal human mind than such physicalist views as certain idealisms or mysticisms of the past, like the one of Bishop Berkeley a couple of hundred years ago, though the latters' destructive force had not been, and could never be, so dangerous and humiliating for man than the physicalisms and materialisms of today.

Not that I would for a moment deny that man is part and parcel of the universe, that it belongs into the inanimate and animate worlds surrounding us, that his destiny is determined in accordance with the rhythms of our natural world. Not at all; the expression in the subtitle of the essay – anti-Faustian – emphasizes this because it indicates, on my part, the rejection of the worldview which holds that man is the master of the universe. Far from being the master of the world, human beings play their part in the natural flow of events according to the possibilities they were endowed with by nature itself through biological evolution, – but also according to the capabilities they developed themselves on the basis of their natural inheritance.

I call the physicalist-materialist as well as sociobiologist worldviews not only ideological (the ideological urge of affirming the primacy of the material is evident behind their assertions)[1] but nihilistic for the very reason that they tend to destroy man's belief in his own capacities and thereby depriving him from his dignity, because making him nothing but a part of a universal mechanism[2]. If man is nothing but a bundle of chemical and physical reactions, if man is nothing but a complex of neuroscientific linkages and reactions, the value of the human personality, and the respect due to it, are lost. This sort of scientific nihilism, because it is nihilism even if it is vested and decorated with scientific terms and references, is, I believe, not attributable to true science but to what one can earnestly call pseudo-science; I mean by that description the tendency of scientists and philosophers of science (who are but commenting the achievements of science itself), which aims to impose on us the quasi-religious belief in the absolute predominance of the scientific worldview as against all others views of the universe's and of our world's realities. Not science is rejected, but the exorbitant claims to the primacy of scientific reasoning and science as a worldview, out of proportion with all genuine human pride in our species' creating capabilities and competence for knowledge.

The physicalist doctrine is flat in its reductionist striving to incoporate man and the human *Lebenswelt* in a world picture coherent with a specific type of rationality; though all reflections and efforts to create a unified

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[1] A recent, moderately formulated exposition of naturalistic materialism was given by Michael Ruse, philosopher of biology, and E.O. Wilson, father of sociobiology: "Everything human, including the mind and culture, has a material base and originated during the evolution of human genetic constitution and its interaction with the environment. To say this much is not to deny the great creative power of culture, or to minimize the fact that most causes of human thought and behaviour are still poorly understood. The important point is that modern biology can account for many of the unique properties of the species. Research on the subject is accelerating, quickly enough to lend plausibility to the belief that the human condition can eventually be understood to its foundations, including the sources of moral reasoning**."** Ruse-Wilson 1986, 173. It can be seen that nothwithstanding the moderate tone of this statement, it still expresses a prophetic vision, a belief in what empirically is not ascertainable (in accordance with science's own assumptions).

[2] In his critique of sociobiologism Marshall Sahlins, – who considers natural selection a local principle of historical change, a relative advantage in the course of evolution, but not as the maximization principle of individual fitness, – sums very well up the situation as it is today: "Selection indeed has lost its orienting power in favor of the maximization scheme of the individual biological subject. The structure of this argument transforms natural selection into the means by which DNA optimizes itself over the course of generations... Natural selection is ultimately transformed from the appropriation of natural resources to the expropriation of others' resources**."** Sahlins 1976, 73-75.

scientific worldview, such as Einstein's, are still nothing more than a pious wish, they cannot be called flat because of the inherent grandeur they reveal. Nothing at all of such an impression can be detected in the cognitivist, physicalist ideology of today. This is all the more so that a fundamental paradox is at the basis of the physicalist contention: it champions empiricism and realism (although in a specific sense of these terms) but it has few empirical proofs to support its claims and little if any concrete references to reality. The proofs and empirical results concern only some partial relations between what we call the physical and the mental in man; whenever the presentation of a global picture is endeavored prophecies and unwarranted beliefs constitute the main argument.

The aim I pursue in this essay is not to launch a polemical attack against the physicalist position sketched above; the foregoing argument served only to explain why I felt necessary to write about my chosen subject. With this objective accomplished the polemics is closed.

In the following pages, I shall try to sort out the two constitutive elements of human existence, the biological and the cultural, in order to gain a realistic view of what we are and what our place is in the surrounding universe. My thinking and vocabulary, when describing and analyzing the human sepcificity I call 'human transcendence', will reflect those of the phenomenological and critical philosophies, including Heidegger and Merleau-Ponty or Popper's critical rationalism and Rorty's sceptical stance, as well as the views of contemporary social science, in particular of postmodern sociology. But I shall start with an overview of the present thinking in evolutionary biology, completed by relevant statements of philosophically-bent physicists, neuroscientists and other specialists of academic disciplines, on the fundamental question of *evolutionary leap or saltation*, that is, the difference, inexplicable in physicalist terms, between man and the rest of the universe.

What Is Evolutionary Saltation?

I do not think that anybody could doubt the fact that, at a certain moment in the course of biological evolution, a leap occured which brought with itself a rupture in the general evolutionary processes and, especially, in the evolution of man (I prefer not use here the term mutation because the event referred to was incomparably different from everything we know as mutation). This leap did not mean that the physical and biological evolutions came to an end; far from that, they continued but were completed by a new evolutionary phenomenon, an addition to the physical, chemical, and other evolutionary processes, – a phenomenon which represented something totally new in comparison with what was going on before. The new phenomenon followed upon a certain evolutionary orientation which, without having a teleological determination, happened to hit upon a saltationary move by creating the possibility of a completely different chain of events in man's existence. One could refer here to the old philosophical principle, dating back to Antiquity, which was given a new lease on life in the nineteenth century by Marx who considered in his general theory of historical evolution that at a given moment quantitative changes leap into qualitative changes, that is, there is more than a modification of the past, - an inevitable but fundamental change occurs in the sequence of events.[3]

Emphasizing evolutionary saltation is not intended as a return to some old views – Lamarckian or Mendelian, or those linked to the theories of typologists – because I consider that there was only one, unique saltation in the course of biological evolution, creating a new species - man. The leap brought fundamental changes in the phenotype and in inclusive fitness of individuals and groups through the introduction of a new and parallel evolutionary process. Consequently, this essay is not an attack on the views affirming that

[3] It is appropriate here to quote Ernst Mayr's tentative definition of so-called evolutionary novelties: "I include any newly arisen character, structural or otherwise, that differs more than quantitatively from the character that gave rise to it. Consequently, not every change of the phenotype qualifies, because change of size or of pigmentation would be a change of phenotype not necessarily qualifying as 'emergence of an evolutionary novelty'. What particular changes of the phenotype, then, would qualify? Certainly any change that would permit an organism to perform a new function. Tentatively, one might restrict the designation 'evolutionary novelty' to any newly acquired structure or property that permits the assumption of a new function**."** MAYR 1976, 89. Though Mayr evidently does not think but of functional novelties or structural changes serving those novelties, the concept of evolutionary saltation I am putting forth here fits his definition as it certainly brought with it a new function in a species' life, - culture and society, - through which a new species was born. However, his statement (ibid. 91) that the boundaries between quantitative and qualitative change are blurred, cannot be generalized; it is so, perhaps, in certain biological domains, but not in human matters.

evolution is gradual and is progressing through intermediate stages because it affirms the importance of a developmental leap creating something entirely new among the biota of our universe. Darwin's remark that saltation theories cannot be true because they suppose "that many individuals varied simultaneously" (Darwin 1872, 261) is not relevant because the unique evolutionary saltation I refer to here was an end-result of a long developmental pathway itself in which natural selection happened to turn out a successful solution. However, and without entering the debate in biology about the eventual advantages of specialization, I believe that in the appearance of the human species, though Cope's "law of the unspecialized" (Cope 1896, 172) did not really play a role, the plasticity of man's nature is of the highest importance. I do not doubt that natural selection, at a given moment in the evolutionary process, had a choice between different phenotypes, and promoted the alternative which possessed the genetic basis, – the morphological and behavioral preadapted forms, – which made possible the evolutionary saltation permitting the simultaneous physical and cultural development of the human species. This may be all the more true that the human brain reached, probably at that moment, the optimum size and, as Mayr stated, "Brain size is correlated in many subtle ways with the whole mode of life" (Mayr 1976, 111).

The leap which occured meant the start of a completely new evolutionary phase, completing and enhancing the biological processes hitherto in evidence: this new component of man's existence was cultural evolution. *My thesis, then, is that since the saltation occurred, man's evolution had two equally important components, the biological and the cultural, and that the cultural component became the dominant factor though it operates in a completely interrelated fashion with the biological component, with which it is interacting in the formation of each human phenotype*. If evolutionary saltation resulted, on the one hand, in a rupture between nature and culture, as it really did, it could not, on the other hand, abolish the intertwinning between the two because they continuously interact and thereby condition each other in the course of evolution. This thesis presupposes what for the scientific rationality and purely logical reasoning it is difficult, if not impossible, to accept, namely, the distinctedness and, at the same time, the onenness – in the form of eventual correlation – of two different things. Such a presupposition, which reflects an evident indeterminacy in things human is, however, possible in a dialectically conceived, holistic framework, liberated of the iron cage of ideological materialism or physicalism as well as from what one calls methodological individualism.

In the ideological conditioning of today's scientific standpoint the domination of an individualistic approach is evident. This approach is built on the assumption that there is a deterministic relationship or fixed correspondence between an individual human being's character and the society's structural and institutional characteristics. It excludes the possibility of man's freedom, the possibility of successive human generations creating their own world in their own image. If it is true that modern biological theories affirm the uniqueness of each individual as the point of interaction of the genotype and the environment, they also insist that the locus of action of evolutionary forces is a population wherein natural selection operates. Thus, genotypic creativity concentrates its effects, in the course of adaptive processes, in slowly evolving populations without excluding the possibility of exercising specific influences in selected individuals. If this is so, this biological phenomenon reinforces as well as explains the fundamental dialectical unity and interaction of community and individual in cultural development. It is therefore important to point out that the two developmental lines in human evolution – biological and cultural – both promote not the duality but the dialectical unity of individual and community without assigning overwhelming priority to one of them.

The fundamental fact of evolutionary saltation was, however, that it opened up the possibility for man to transcend his immanent world, – precisely that physical world to which one wants to reduce him, – by interpreting everything in the light of meanings he creates and he gives to things surrounding him; by imagining symbols reflecting reality in accordance with his beliefs, desires, and values, and by assembling these symbols into orders representing his world. Meanings and symbols sum up all what enable man to transcend the world in which he lives, – religion, philosophy, art, science, or language – and through which he responds to nature's impulses, to the conditioning of his environment, and to the initiatives and actions of human communities and societies. Marshall Sahlins sums very well up the essence of human transcendence in the form of symbols and meanings:

> In the symbolic event, a radical discontinuity is introduced between culture and nature... The symbolic system of culture is not just an expression of human nature, but has a form and dynamic consistent with its properties as meaningful, which make it rather an intervention in nature... a meaningful system of the world and human experience that was already in existence before any of the current human

participants were born, and that from birth engages their natural dispositions as the instruments of a symbolic project" (Sahlins 1976, 12-13)[4].

A special case of symbolism, enabling man to conceptualize ideas and communicate his thoughts, is language of which alone the importance is recognized by many physicalists or sociobiologists (see, for example, Wilson 1975, 168). They, however, reduce all human culture to man's language capabilities ignoring cultural and social definitions of realities through symbolic attributes. In all these cases the *structure of signification* is forgotten in favor of the reduced concept of language as *function of communication*, – understandably, of course, because such a language function fits well into the adaptive role assigned to some specific aspects of human culture.

[4] I do not follow, however, Sahlins when he declares that the "biology of mankind has been shaped by culture". (Sahlins 1976, 13-14), though the suggestion that modern man is the result of a very long cultural selection process is coherent with the view I try here to defend.

PART ONE

EVOLUTIONARY SALTATION AND CONTEMPORARY BIOLOGY, PHYSICS, PHILOSOPHY AND ANTHROPOLOGY

CHAPTER ONE

SALTATION AND EVOLUTIONARY BIOLOGY

1. Basic Concepts of Evolutionary Biology

Biology considers that individuals are the units of evolution, but it is justified to ask what kinds of individuals constitute these units. Any entity can be such an individual whose existence is inserted in, and determined by, a spatio-temporal position without showing a universal covariation of morphological traits. If such an entity represents a coherent unity and temporal continuity it constitutes an individual, who is (i) the seat of genetic developments and the bearer of determinate aspects of fitness; (ii) the subject of organismic competition, and (iii) the object of natural selection. Thus, genes, cells, organisms, populations and species are all, in the above- defined sense, individuals, under the universal constraint of replication or reproduction, and forming an evolutionary hierarchy. In a holistic perspective of biological evolution, which I share with Hull, they are all linked together in a natural hierarchy composed of different levels, that is, in a whole-and-parts relationship. Therefore, it appears to me, that it is correct to say, "populations are the effective units of evolution."[1] Population means not only a simple collection of individuals, but a group which is a genealogically constituted collectivity, that is, composed of successive generations of organisms, having a common genetic basis and benefiting of a sufficient genetic continuity which permits the slow evolutionary process to produce adaptive modifications of the shared genotype through mutations and recombination (Hull 1989, 80-86).

From the *functional point of view*, genes are the locus of mutations and recombination, but genetic variations affect the whole genotype because each individual change in genes modifies the genotype. Genes are the ultimate source of diversity in evolution;[2] their mutations are random with respect to the needs of the organism or, in other words, to the operation of natural selection. It has to be noted, however, that the translation of genotypic instructions into the development of the phenotype, especially in the case of the brain, are not straightforward because of what Waddington called *development noise*, or random alterations due to the environment or other influences. Organisms, participants in processes leading to genetic change, are the external expressions of the genotype that they carry and transmit through replication or reproduction in the course of their ontogeny. Consequently, they are the bearers of phenotypes (reflecting relative

[1] Ernst Mayr states that "species are the real units of evolution", they are the entities which specialize, which become adapted, or which shift their adaptation. And speciation, the production of new gene complexes capable of ecological shifts, is the method by which evolution advances. The species truly is the keystone of evolution" because "successful speciation depends not only on the acquisition of isolating mechanisms, but also on an ability to utilize certain resources of the environment more successfully than any competitor." Mayr 1976, 522-524. However, I prefer to speak of populations and groups but I do not feel that the difference is great between the two definitions, especially as Mayr here specifically speaks of ecological adaptation.

[2] Mayr gives a striking example of different genetic programs developed by different genotypes: "The young cowbird is raised by foster parents – let us say, in the nest of a song sparrow or warbler. As soon as it becomes independent of its foster parents, it seeks the company of other young cowbirds, even though it has never seen a cowbird before! In contrast, after hatching from the egg, a young goose will accept as its parent the first moving (and preferably also calling) object it can follow and become 'imprinted' to. What is programmed is, in one case, a definite 'gestalt', in the other, merely the capacity to become imprinted to a 'gestalt'." Mayr 1988, 26-27.

properties of genotypes) that represent a compromise of all selection pressures. The genotypic background, however, may absorb a wide range of environmental variation without imprinting changes in the phenotype. In fact, the genotype specifies a range of possible phenotypes the organism may have, usually called the *norm of reaction*. Phenotypes, therefore, indicate variations in populations through gene mutation and selection as well as drifting which modify frequencies of alleles within the populations concerned. Populations, in their turn, are characterized by phenotypic differentiation of organisms;[3] morphological diversification may create fragmentation of populations and the constitution of isolated groups, if environmental conditions are favorable, into discrete species.[4]

Genotypic-phenotypic diversity reflecting continuity and discontinuity leads to the formation of species. As a result the human species is simultaneously polymorph (variations within populations) and polytipic (variations between populations). Species are reproductive communities, therefore natural entities; they are linked by what is called reproductive interconnectedness and not by phenotypic traits. Discontinuity mainly indicates the reproductive isolation of the species due to phenotypic differentiation for adaptive purposes. Eldredge's theory of *punctuated equilibria* explains (Eldredge 1985, 128-129), in this sense, that in the course of the transmission of modified species-specific phenotypic differences from ancestors to descendants, the consecutive change occurs rapidly in comparison to the longevity of the species. This is especially so in the case of intraspecific modifications leading to speciation. As Mayr usefully pointed out, macroevolution is the result of intraspecific variation, and at higher levels of integration entities reveal a unique character (Mayr 1982, 298 and 1988, 34).

It is essential to point out that, in contradiction to the formerly dominant theories which envisaged temporal change as *transformational*, Darwinian evolutionism emphasizes that change is *variational*, meaning that via modification in phenotypic differences temporal evolution takes place through variation "in the proportion of different types" (Levins, and Lewontin 1985, 85-86). In consequence, organisms are objects of evolutionary forces, instead of being their subjects, though natural selection represents an internal force operating independently of the organism's requirements and without regard to its relations with its external environment. However, the organism is not developing autonomously but in constant interaction with its specific environment.[5] This epigenetic, many-to-many relationship is the reason that mutations are random and, consequently, of the curious fact that the phenotype which is a result of the interaction of genotype and environment is, however, not determined by the two. The phenotype is thus asymmetric in comparison to the interacting genotype and environment because random developmental events intervene in the evolutionary process, and such stochastic events may considerably influence individual variation of complex organs like the brain.

Natural selection, an *a posteriori*, creative process operating on genealogical lines – in the form of generation-by-generation change of allelic frequencies in populations, through differential reproductive success in case of sexual species – is the mechanism of evolution promoting any change which favors

[3] "From the point of view of population biology," writes Brandon, "evolution is any change in the distribution of 'types' over *generational time*. Population geneticists define evolution as any change in the relative frequency of alleles over generational time. If a more organismic approach is preferred, evolution could be defined as any change in phenotypic distributions over generational time. Brandon 1990, 5 (italics in original).

[4] Dobzhansky points out that "any genetic agencies that decrease or prevent some exchange between species are called reproductive isolating mechanisms. Many such mechanisms are known. They range from differences in preferred habitat, behavior, courtship rituals, and breeding seasons, to difficulties of fertilization and invariability or sterility of the hybrids. No one of these isolating mechanisms occurs universally between all species... Any one isolating mechanism may be strong enough to isolate a species, but the separation of species is usually accomplished by a combination of several mutually reinforcing mechanisms." Dobzhansky 1962, 184. Jean Rostand should also be cited here as he relevantly pointed out that "by and large, actual *progress depends on differentiation, while potential progress is possible only by virtue of non-differentiation*." Rostand 1960, 167 (italics on original).

[5] "First, it is not true that the development of an individual organism is an unfolding and unrolling of an internal program... The organism is a historical process that goes on from the moment of conception until the moment of death; at every moment gene, environment, chance, and the organism as a whole are participating. Second, it is not true that the life and death and the reproduction of an organism are a consequence of the way in which the living being is acted upon by an autonomous environment. Natural selection is not a consequence of how well the organism solves a set of fixed problems posed by the environment: on the contrary, the organism and the environment actively codetermine each other." Levins, and Lewontin 1985, 89.

survival of one or another of phenotypes; "selection is an interplay between replication (the genealogical perspective) and interaction (the ecological perspective)," as Hull pointed out (Hull 1989, 12). The target of selection is always the entire individual, or the entire interacting system of genes. The Darwinian principle of inheritance, – heritable variation in expected fitness or adaptedness which are environmentally not invariant, – involves spatio-temporal relations in the case of sexually reproductive individuals and necessitates the primacy of the genealogical perspective.[6] Following Waddington, "evolution is a matter not of single life-times but of the passage of generations. What is important for it is not survival but transmission of qualities to offspring" (Waddington 1975, 281). Human evolution produced an alternative system of the transference of information to successors in comparison to the genetic mechanism depending on genes, – culture. The double angle of pattern and process – patterns of phenotypic variations or upward-downward causation as well as processes of random mutations and recombination – represents an evolutionary characteristic as well, an important phenomenon as selection operates at several levels. No generalizations, similar to laws, are possible concerning the effects of selection. Even if the organizational hierarchy is invariant, the level at which selection operates is variable.

Multilevel selection is, of course, entirely distinct from differential reproductive success, but reflects variations of genomes and the adaptational efficacy of the organisms. Among varieties of multilevel selection modes are (i) intrapopulational and (ii) interpopulational processes; the latter include group selection and species selection. Although genic selection and morphological adaptation are much more important in the evolutionary process, adaptation through group or species selection is, for Williams, "a creative evolutionary force that supplements genic selection" (Williams 1966, 124). Group selection (when groups are constituted as individuals from the point of view of natural selection) aims at fitness of the group that benefits from it. Groups are characterized by their internal organization and by a common phenotype; the pliability of this phenotype (or developmental flexibility) may contribute to the group's resistance to adverse selection pressures. Groups as well as species are thus the objects of selection as spatio-temporally circumscribed entities representing cohesive wholes. The differential adaptation of groups or species to the common environment – as actualized fitness – is the basis of the operation of selective forces because their reproductive success is due to that environment. "For the differential reproduction of groups to be group selection," says Brandon, "there must be some group property (the group 'phenotype') that screens off all other properties from group reproductive success" (Brandon 1990, 86-87).

The indication of differential adaptedness to a common environment leads us to the idea of adaptation as the principal stimulant of natural selection. Brandon distinguishes two different aspects of adaptation: adaptation as the evolutionary process, and adaptability that constitutes the organism's response to environmental variations and corresponds, in fact, to functional adaptation or differentiation. He, in consequence, describes three approaches to the phenomenon of adaptedness and favors the third one, which I find as well the most appropriate, what he calls the propensity interpretation of adaptedness: "The ability to survive and reproduce is not a *specific* biological property since it will be differently instantiated for different organisms and different environments" (Brandon 1990, 14; italics in original).[7] Adaptedness is thus relative to the environment and can be regarded as either the adaptation of a whole phenotype or the adaptation of certain phenotypic traits. Brandon justly remarks that not all traits have the same causal history; there are traits – for example, those due to chance – that do not serve adaptation.[8] He prefers,

[6] "Ancestors can give rise to descendents only if they are in proximity of each other,"writes Hull. "The nondimensional species concept is important not just because it provides our epistemological entree into the living world, but more importantly because species interact with their environment and other species only in the specious present. The only things that matter about a species' past are those things that have left traces in the present. Even so, it is just as important to emphasize that these time-slices must be organized into lineages if differential propagation is to result in cumulative change." Hull 1989, 123.

[7] In Mayr's definition: "Adaptedness is the morphological, physiological, and behavioral equipment of a species or a member of a species that permits it to compete successfully with other members of its own species or with individuals of other species and that permits it to tolerate the extant physical environment. Adaptation is greater ecological-physiological efficiency than is achieved by other members of the population. Improved adaptedness may be due to a particular component of the phenotype, or to a single gene, or to the total genotype... Thus it is evident that we have 'adapted' and 'better adapted'. This is precisely the process of natural selection which, on the average, favors those that are 'better adapted.' Mayr 1988, 135.

[8] See on epiphenomenal traits and traits due to chance, Brandon 1990, 40-42.

therefore, to examine the adaptability of a trait in a specific environment instead of speaking of adaptation in general. Borrowing the expression chance set-up from Ian Hacking, Brandon considers that "a biological entity in its environment is a chance set-up" (ibid., 145) which underlines the importance of the process of adaptation and the adaptability of phenotypic traits because if the "causal bases of adaptedness values are to a degree heritable" (ibid., 149), the effects of the latter can counterbalance the consequences of the former.

The importance of the chance factor is universally recognized in evolutionary biology, but the integrative function of natural selection, including conservatory forces, was emphasized only by a few. According to Schmalhausen, natural selection is as much a modifying element through variations of the norm of reaction as it is a stabilizing force through giving advantage to the established norm over all deviations from it, or, in other words, through the elimination of all chance variations. Regulating mechanisms operate during the process of individual development protecting the organism's integrative/adaptive reactions from internally occasioned disturbances (mutations) and fortuitous external influences: "Autoregulation is characteristic of all adaptive modifications" (Schmalhausen 1986, 10).[9] Schmalhausen considers this phenomenon of *stabilizing selection* an extraordinarily creative process. Dynamic and stabilizing types of selection always act jointly in varying environmental conditions; as regards the phenotype, the effect of stabilizing selection is the improvement of morphogenetic correlations insuring harmonious development and mutual adaptability of parts and organs of the organism through maximal integration:

> Stabilizing selection is the most important agent altering the factors of individual development, determining the continuous process whereby individual adaptations are gradually incorporated into the normal organization, and, consequently, transforming all of ontogeny by progressively raising the regularity of normal morphogenesis and the stability of the adapted norm (ibid., 242).

Waddington's theory about *homeorhesis* which denotes a trend, a particular course of change in time, as against *homeostasis*, which normally refers to the constant value of a given quality, thus emphasizes the same idea, the importance of stability. A stabilized goal-directed trajectory (Waddington's *chreod*) stands, then, for the organism's capability to oppose aberrations and deviative, random mutations in order to pursue its basic purpose within the increasing complexity of epigenetic processes (Waddington 1969, 366).

Finally, adaptive trends and adaptation evoke, as a result, the problem of teleology in evolution. Ernst Mayr points out that evolution consists not of teleological but *teleonomic* processes, the difference being that in the latter case the goal-directedness is due to the guidance of a program – the genotype (Mayr 1976, 389-398).[10] Adaptation is the result of natural selection, adjusted according to the selective value of the intermediary end-result. Natural selection therefore initiates or causes goal-directed behavior, which constitutes a coded or pre-arranged as well as dynamic behavior, and it is in this guidedness or pre-arranged character that it is different from a teleological operation. As adaptedness or adaptation are *a posteriori* concepts in Mayr's perception, only the success of an adaptation shows that the concerned trait was truthfully adaptive, therefore the designation teleological cannot apply to them.

The final argument in favor of Mayr's explanation of teleonomic adaptation is that *evolution is a historical process*, involving historical causation, fundamentally different from causation obeying physical laws (Mayr 1988, 139). The historical aspect of evolution excludes the possibility of any teleological statement or

[9] "The historical basis of organization characteristic of every species is associated with a definite autonomy of living processes, especially with a definite autonomy of the processes of individual development. The organism never submits passively to the influence of external environment. It frequently opposes the environment, following its own phylogenetically determined reaction pattern. In this instance, one may speak of regulative reactions. During the course of evolution, regulative processes acquire increasing importance in both physiologic and morphogenetic reactions. Autonomy of the life process is most pronounced in the higher organisms." Schmalhausen 1986, 35.

[10] "All objects of the physical world are endowed with the capacity to change their state, and these changes follow natural laws. They are end-directed only in a passive, automatic way, regulated by external forces or conditions. Since the end-state of such inanimate objects is automatically achieved, such changes might be designated as *teleomatic*... Teleomatic processes simply follow natural laws, i.e., lead to a result consequential to concomitant physical forces, and the reaching of their end-state is not controlled by a built-in program." Mayr 1988, 44 (italics in original).

prediction, but makes necessary to envisage a pluralism of causes and effects as a result of (i) broad, stochastic processes, (ii) the hierarchical organization of the natural order, and (iii) the internal cohesion of complex systems.

2. Man and Culture As Seen by Biologists

Few biologists, but those among the greatest, gave expression to their ideas and opinions about man and culture or, rather, about the relations and interactions between biological and cultural evolutions.

Theodosius Dobzhansky, together with Ernst Mayr, dealt with this subject most extensively. For example, in his book, *Mankind Evolving*, he wrote without hesitation that

> Human evolution has two components, the biological or organic, and the cultural or superorganic. These components are neither mutually exclusive nor independent, but interrelated and interdependent. Human evolution cannot be understood as a purely biological process, nor can it be adequately described as a history of culture. It is the interaction of biology and culture. There exists a feedback between biological and cultural processes (Dobzhansky 1962, 18).

He recognizes that the development of human symbolic faculty[11] as well as of cultural creation and transmission was a 'radical innovation', and that by creating the genetic basis of culture biological evolution *transcended* itself (ibid., 20).[12] Genetic conditioning made possible the emergence of culture, but did not make every human being identical; there are many types of human beings and human natures, each with its proper needs for development and self-realization. For cultural evolution to take place genetic change in the whole genotype was necessary. The question always is, however, how much genetic variance, capable of modulating developmental processes, is available in a given human population? Genes do not compel the development of a definite mental feature or cultural trait but the direction of selective pressures and, among them especially that of the social environment, determine which feature and which trait will be primarily developed. "Phenotypic plasticity," in Dobzhansky's view, "does not preclude genetic variety," and even this plasticity is greatly variable because cultural properties and achievements are not transmitted by genes, therefore their appropriation – through conditioning, learning, or socialization – must be repeated in every generation. In Dobzhansky's perspective, then, the biological and cultural evolutions constitute the same natural process, or, "mankind is a species that is genetically capable originating culture" (ibid., 320). This genetically assured potentiality for the acquisition of coevolving culture and language makes man biologically unique (Dobzhansky, and Boesiger 1983, 63-64).

In Mayr's perspective, man's evolution shows that in his development it follows an open genetic program in the course of translation into the phenotype, that is, this program allows for additional input from experiences during man's lifespan, in comparison to the closed program in other living organisms that does not permit appreciable modifications during development. Hence the importance of the extended period of parental care, and the greater capacity of learning as "it permits storing for more experiences, more

[11] "Human mental activity is characterized by preoccupation not with signals but with symbols. Human languages are predominantly symbolic. Symbol is an act, or an object, the meaning of which is socially agreed upon or bestowed by those who perform this act or utilize this object." Dobzhansky, and Boesiger 1983, 65.

[12] Dobzhansky and Boesiger define culture as follows: "Culture is the totality of information and behavioral patterns that are transmitted from individual to individual, and from generation to generation, by instruction and learning, and by example and imitation... Culture must be acquired by every individual himself... Here is an analogy: Human genes are indispensable for learning human languages, but they do not determine which of the many existing languages a person will learn, let alone what the person will choose to say in that language." ibid., 64.

information about the environment" which means a bigger storage capacity – the brain – and a larger central nervous system (Mayr 1976, 695-696, 699 and 708).[13]

For Dobzhansky, natural evolution, in endowing man with cultural capacities, enhanced purposefully the latter's adaptation to the environment. The appearance of culture, thus, seems to be a utilitarian and pragmatic affair though, for example, it must have been evident from the beginning that art could never be instrumental in adaptation. Dobzhansky is, of course right when he affirms that the emergence of man's capacity and competence to acquire, develop, modify, and transmit cultural phenomena represented incomparable adaptive advantages, and gave a new intensity to his fitness in the competitive world of organisms. Considering evolution in the broadest cosmic sense, Dobzhansky distinguishes in it several transcendental turns without implying philosophical or mystical transcendentalism, – such transcendental transitions being those from inorganic to organic and from organic to human evolution. Transcendence, then, means going beyond the limits of the preceding evolutionary phase, being an evolutionary event "introducing new laws of nature" (Dobzhansky, and Boesiger 1983, 76). Waddington's idea of archetypes is similar to these new laws of nature. Archetype is a form of effectiveness; it is not the result of a so-called macro-mutation, a hereditary change of a certain magnitude, but is the consequence of the character of the developing internal organization of a phenotype. Thus, following a continuous sequence of small, gradual changes due to selective pressure during an extended period, evolutionary forces suddenly produce a new organism (Waddington uses the word form) of which the stability and the capacity of response to new challenges is of a higher magnitude than those of the organisms produced in the past (Waddington 1975, 306).

In comparing biological endowment and culture, Dobzhansky also realizes that the latter offered overwhelming advantages over other adaptive properties which appeared in the course of evolution: "New inventions are more significant than mutations" (Dobzhansky, and Boesiger 1983, 65). These adaptive properties include rapidity as well as universal access to human minds, that is, cultural transmittability, and, first of all, the cerebral integration and coordination underlying man's transcending capabilities. In Mayr's view, in the evolutionary process man became specialized in despecialization, what is called otherwise the plasticity of his nature. Speech was the greatest innovation which gave man his most distinctive characteristic as it made possible the nascence of community structures and enabled man to live as a social being.

Dobzhansky, however, could neither explain how the cultural component, which is species-characteristic, came into being,[14] nor why cultures or civilizations disappear just as other organisms, because he stops short of accepting any idea of evolutionary saltation. The affirmation that culture is based on shifting genetic foundation states a fact, as much as the recognition that cultural evolution influences man's genetic endowment.[15] The variability of cultural capacities and competences is due, on the one hand, to genetic conditioning but, on the other hand, to the fact that reproductive success is more frequent in the culturally less endowed groups of the world's population which produces selection favoring lower endowment in cultural terms (Dobzhansky 1962, 314). Cultural development, which creates differences, makes also the world less stable for humans. The interaction between biological and cultural evolutions produces continuous feedback between them; Dobzhansky, in fact, believes that man's cultural capacities enable him to guide his evolution and to re-orient the evolution of nature as a whole.

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[13] The above distinction by Mayr on open and closed programs concerned individual genotypes and not the whole evolutionary process.

[14] He wrote in 1967 in his usual style: "Viewed in an evolutionary perspective, the potentiality of life must have been contained in the inorganic world. The evidence of this is simply that we know that in fact life eventually did appear. Similarly, the potentiality of mind must have been present in the protoplasm, since we know that rational beings eventually did arise... The origin of life and the origin of man were evolutionary crises, turning points, actualizations of novel forms of being. These radical innovations can be described as emergencies, or transcendences, in the evolutionary process... Evolution is not simply an unpacking of what was there in a hidden state from the beginning. It is a source of novelty, of forms of being which did not occur at all in the ancestral states." Dobzhansky 1967, 29 and 32-33.

[15] It is important to note that Dobzhansky advances the hypothesis that mutation rates are rising in the whole world, especially in technically advanced countries, concomitantly with the increased Darwinian fitness of carriers of diseases – a result of modern medicine and life styles modified by cultural developments. ibid., 295 and 303-304.

Mayr, for whom the emergence of man represented a continuous process, argues in the same way as Dobzhansky in respect of man's appearance in the course of evolution. Reproductive success is not closely correlated anymore in our society with genetic superiority. This means that the selective premium, because of cultural phenomena such as urbanization and diseases that are related to it, favors other factors than it did during the evolutionary past. In addition, Mayr explains the abrupt development of the brain size, and reoriented selection pressures, by the leveling effects of cultural developments:

> The development of cultural tradition and the steady improvement in means of communication greatly reduces selective pressures. All the members of the community benefit equally from the technological and other achievements of the superior individuals. Thus, the below-average individual, provided he is not too far below average, can make a living and reproduce as successfully as the above-average individual (Mayr 1970, 386-387).

The uniqueness of man on which even his cultural abilities are based is the possession of the mind which, for Dobzhansky, means also self-awareness, "an immediate and indubitable certitude" because (i) it has a genetic basis and is part of the evolutionary endowment of man; (ii) it integrates and coordinates the latter's physical and mental capacities; and (iii) it makes possible social interaction and cooperation. Mind and self-awareness are the secrets of the outstanding success of the human species because self-awareness constitutes also the basis for the crucially important human quality: social cohesion. It is also the source, – and this is Dobzhansky's most important conclusion, – of man's death-awareness because self-awareness is simultaneous with the awareness of human finitude. Death is the negation of any meaning of life. Death-awareness is one of the truly universal characteristics of our species which played an extremely important role in the cultural evolution.

The other universal characteristic of the species-man is that we have an ethical dimension in our life. Dobzhansky as well as Mayr quote Simpson who wrote in 1969 that

> The concept of ethics is meaningless, unless the following conditions exist: (a) there are alternative modes of action; (b) man is capable of judging the alternatives in ethical terms; and (c) he is free to choose what he judges to be ethically good (Dobzhansky, and Boesiger 1983, 69-70; Mayr 1988, 77).

The capacity of ethical behavior has a genotypic and phenotypic basis for Dobzhansky, but ethical codes are part of cultural inheritance and are learned by each generation. This means, that "man is born neither good nor evil but with a capacity to become either; that is, to acquire whatever mixture of good and evil tendencies the circumstances of his personal biography induce him to have" (Dobzhansky, and Boesiger 1983, 70-71). Group or family ethics are probably promoted by natural selection; human behavior obeying to such ethics has the greatest number of parallels in animal behavior – in accordance with the differential reproduction thesis. Ethics of human origin is different because it does not make distinction with regard to genetic relationships.

In Mayr's perspective, human ethics "emerged from the inclusive fitness altruism of our primate ancestors..." but "the shift from an instinctive altruism based on inclusive fitness to an ethics based on decision making was perhaps the most important step in humanization" (Mayr 1988, 77-78). At this point, Mayr has recourse to the concept of group selection (he thinks that cultural groups as wholes are targets of selection) that probably rewards altruism or any other qualities and virtues which may strengthen the group. This proves, writes Mayr in full agreement with Dobzhansky, that ethical norms and behavior are not innate, and only the capacity for adopting them is genetically conditioned, as "the largest part of moral values of a human being are individually acquired through interaction with other members of the cultural group" (ibid., 78-83). It is also Mayr's conviction that human free will cannot be opposed to causality because it is a form of a sort of *a posteriori* causality, in view of the execution of the open program of the human genotype (ibid., 78).

Evolution points towards the importance of individuality emphasizing that an individual is not representative of an immutable entity called species. Human individuals are irremediably different in their

genotypes and in their phenotypes, which represents an interaction with the environment,[16] as well as in their cultural identities that constitute the true basis of human pluralism. Even a specific human being does not remain the same in the course of his development (aging, for example, says Dobzhansky). Development results in an orderly succession of phenotypes reflecting a chance-bound sequence of natural and human environments in which a person lived during his lifespan. An example of what Dobzhansky considers as the influence of the human environment is his remark on the class system of society: "The greater the rigidity of the class barriers, the less the opportunity for social mobility, the more genetically meaningless is the social stratification" (Dobzhansky 1962, 248).

Finally, in respect to the major theme of equality of all men, Dobzhansky affirms, first of all, that education is supplementing genetic diversity, a necessary cultural correction to the biological fact that covariance between genotypes and environments impose limits on the equality of men. Therefore, genetically conditioned educability "confers the highest Darwinian fitness on human genotypes" (ibid., 251). It is the highest form of human excellence. Dobzhansky compares this genetic feature to the democratic requirement of equality of opportunity, considering the latter completely independent of genetic factors and does not concern genetically endowed ability. For him, equality of opportunity favors group or class formation in the sense that it promotes the aggregation of genetically similarly conditioned people. Dobzhansky favors equality in society because it avoids the waste of individuals' innate human potential, though he knows that it can never achieve through leveling, or even a partial disappearance of genetic and cultural diversity: "Because persons are not alike, the doctrine of equality warrants a recognition in practice of the diversity of individual tastes, preferences, and abilities" (Dobzhansky, and Boesiger 1983, 140). Mayr also speaks of insoluble conflicts with respect to equality and merit, or equality and genetic diversity. For him, however, the response to these conflicts is, first, to recognize that ethical decisions depend mostly on their context, absolute prescriptions are rarely just and may be unethical; second, one has to recognize as well the overwhelmingly important pluralism of solutions to all types of ethical conflicts (Mayr 1988, 87).

Jérôme Monod the French biologist represents an interesting case with his oscillating views between physicalism and his socialist convictions, as reflected in his *Chance and Necessity*. Monod, though primarily a physicalist, recognized that the "biosphere does not contain a predictable class of objects or events but constitutes a particular occurrence, compatible indeed with the first principles, but not *deductible* from those principles and therefore essentially unpredictable" (Monod 1971, 43-44; italics in original). However, phenomena of the biosphere remained not only compatible, but also governed and explicable by these first principles (by which Monod refers to the basic principles of physics), thus maintaining the universal validity of the physicalist view. But this affirmation of the materialist credo did not stop Monod from recognizing that during the entire evolution of hominids, culture oriented selective pressure and automatically influenced the evolution of the genome. Monod, a convinced socialist, believed that the split of nature and nurture became total in the course of modern social evolution as Darwinian natural selection does not function anymore. As a result of the domination of cultural evolution, personal success replaced genetic success as the engine of evolution. The evolution of ideas is based partly on innate structures of the mind, partly on cultural givens and innovations. As an example of cultural influence, Monod cites the tribal law and its mythic justification, and also emphasizes the psychological foundation – anxiety in respect of human destiny, genetically coded – of all religions, myths, philosophies, and of science itself. This innate psychological factor also explains why societies do not echo science's non-scientific message concerning the necessary, total break with old traditions, nonobjective ideas, ethical concepts[17] and ways of life, and its claim in respect of the need to re-create human conditions of existence. For him, man is capable of aiming at transcendence through science.

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[16] "Every individual is unique," writes Mayr, "and differs in a large number of morphological, physiological, and psychological characteristics from all other individuals. Each individual is a different combination of characters and of the genetic factors on which these characters are based... The denial of genetic difference among human beings with respect to intellectual and character traits is a fallacy... Every individual must, therefore, be treated on the basis of his own characteristics, never those of his race." Mayr 1970, 399-400.

[17] Analyzing the relationship of knowledge and ethics Monod developed his famous thesis on objectivity: "It is obvious that the position of the principle of objectivity as the condition of true knowledge *constitutes an ethical choice and not a judgement arrived at from knowledge, since, according to the postulate's own terms, there cannot have been any 'true' knowledge prior to this arbitral choice*... The ethic of knowledge does not obtrude itself upon man; *on the contrary, it is he who prescribes it to himself*, making of it the *axiomatic* condition of authenticity of all discourse and all action... Perhaps even more than an explanation which the ethic of knowledge cannot supply, it is to rise above himself that man craves." Monod 1971, 176-178; italics in original.

3. Man and Culture In Sociobiology

I am briefly dealing here with sociobiology – though the views of its adherents are completely different from those of the great evolutionary biologists whose thinking about the relations between man's biological and cultural evolution I traced above. My presentation will mainly be based on Ch. J. Lumsden and E. O. Wilson's book *Genes, Mind, and Culture: The Coevolutionary Process*.

Natural selection shapes social behaviors, which supposedly, reflect cultural features, without linking genetic and cultural evolution directly. Consequently, the sociobiological theory of interaction of genetic and cultural evolutions is based on the so-called epigenetic rules, dependent on the physical environment and the cultural context, which are directing the constitutive processes of the mind:

> Epigenesis is defined as the total process of interaction between genes and the environment during development, with the genes being expressed through epigenetic rules... Epigenetic rules are the outcome of specificity in cell structure, neuron circuitry, and the timing of hormone release, which properties are themselves more fundamental products of epigenesis at the cellular level (Lumsden, and Wilson 1981, 36).

Epigenetic rules fall into two categories: First, the primary ones characterizing processes between sensory filtering and perception, are not involved in interaction with culture because they are least subject to effects of cultural evolution such as learning. Secondary epigenetic rules, characterized by penetrance (propensity to use some culturgens) and selectivity dominate the evaluation of perceptual experiences as well as the decision making processes of man in respect of the acceptance or the refusal of specific culturgens. Epigenetic rules thus direct the focusing capability of the developing human being. They produce also what Lumsden and Wilson call transparency, that is, the more environmental circumstances determine the genetic fitness of a certain behavior, the more the human mind becomes aware of this and, consequently, adjusts its response to it through more flexibility. The correlation between transparency and context-dependence is an important feature of culture in sociobiology because through cognitive mechanisms and cultural evolution epigenetic rules are translated into mass patterns of mental activity and behavior.

Lumsden and Wilson give a particular definition of culture, including into it the totality of mental constructs and behavior, for two reasons. In contradistinction to anthropologists and social scientists they consider (i) that symbols and symbolization, though important, do not cover some essential aspects of behavior such as, for example, imitation; they take, therefore, symbolism as one special feature only of mental activities; and (ii) that the emphasis on symbolism makes impossible to deal analytically with the complexity of cognitive processes. It is, therefore, evident that sociobiologists reduce culture to its cognitive and behavioristic aspects.

Humans are distinguished from the animal world by the enculturation process, and by their capability of reification. Lumsden and Wilson give to reification as well a special meaning. They understand by it a sort of diagnostic activity of the conscious mind, or a conceptual thinking by a continuously shifting classification of the world.[18] The principal means of reification is the manipulation of symbols, imprinted in the mind through language. As a result of selective forces, culturally determined social behaviors, which generate the highest reproductive rate among competing populations, produce the "statistical distribution of cultures on a worldwide basis" (ibid., 99).

[18] "Higher mental process consists to a large degree sorting vast quantities of aphasically timed and nearly chaotic stimuli into categories, labeling the categories with metaphors and symbols, and freighting them with emotional qualities that emanate from the limbic system. Most human communication involves the transmission of these symbols as words, which are strung together in combinations to convey a virtually unlimited diversity of meaning." Lumsden, and Wilson 1981, 93-94.

The central mechanism of the genetic-cultural evolution based on the effects of epigenetic rules is either the *gene-culture transmission*, in which more than one culturgen[19] is accessible and more than two different culturgens are present whenever adopted; or the *gene-culture coevolution*, which covers three eventualities: (i) change in epigenetic rules due to shifts in gene frequency, (ii) change in culturgen frequencies due to epigenetic rules, and (iii) both changes occurring jointly. These changes influence each other reciprocally. Such a complicated mechanism is made necessary because of the central nervous system's inability to absorb and classify the enormous range of stimuli emanating from the culturgens.

Epigenetic rules have a twofold effect – complementary and reciprocating – on selection. Lumsden and Wilson call the first *genetic assimilation* as it corresponds to the change in a phenotype due to modifications in the environment. This new phenotype, although it does not fit in with all genotypes, which existed before, represents a selective advantage, and therefore its frequency increases in successive generations depending on the intensity of selective forces and of the prevailing mode of inheritance. This phenotype, then, will dominate in a given population and may become part of the norm of reaction of the genotypic setup. Cultural features of man – for example, language capability – are assimilated and transmitted in this way; it is, however, not clear how these cultural capabilities are genetically assimilated through shifts in epigenetic rules which, in turn, facilitate the transmission of newly created culturgens. The second effect of epigenetic rules on selection is called *culturgen assimilation*. This can happen if the genetic program is enough open (with Mayr's expression) permitting new culturgens – technical capabilities – to be invented in the course of development, which later spread in the population. In this sense, cultural evolution fills the space left open by genetically determined epigenetic rules, without taking their place but, rather, reinforcing them. There is an interaction between culturgens and epigenetic rules but, normally, culturgen assimilation follows genetic assimilation.

As a consequence, in the course of the cultural evolution of society, culturgens function as they were in conformity with the requirements of epigenetic rules, that is, as if they were contributing to genetic fitness. In the opposite case they would be eliminated or the epigenetic rules would be tightened. New culturgens may be easily assimilated under the same conditions. If a culturgen is confirmed as promoting genetic fitness during successive generations, even epigenetic rules can be modified in the sense of permitting a larger leeway for such culturgens. Such a filtering by the genetic rules, an indefinite process of culturgen assimilation, is the reason of the expansion or fading away of cultures as well as of otherwise inexplicable cultural shifts.

Culture is, then, the product of innumerable individual cognitive acts, passed through the filter of innate epigenetic rules. In this perspective, it is also the sum of innumerable individual choices constrained by genetic conditioning; therefore, sociobiology derives social patterns of behavior and culture from these acts of biologically grounded individual cognition – as against any organicist conception of gene-culture coevolution. Mental and cultural structures are considered holistically in the very specific sense that they are the outcome of developmental processes in evolutionary time. These processes are based on the genotype and vary in accordance with genotypic frequencies resulting from the interaction of social behavior and environmental selective forces. Culturgens not actively employed at a certain moment are passively stored in memory as alternatives in order to be available whenever the epigenetic rules make possible their use in social life. In the long-term memory, culturally induced nodes as well as their links, and interactive, combinative setups, are stored hierarchically, strictly delimited, and they constitute the individual's received portion of culture; or his culturally determined knowledge structures. Human behavior is based on these learned structures, but the storage and processing capacities are inherited. The channels of culturgen transmission are genetically or culturally conditioned social cleavages and structures (tribes, classes, etc.).

The above conception is consequently based on the capacity of the brain to construct ever-increasing networks of related concepts. This is made through particular networks of nodes, which consist in generalized, complex and higher-level entities stored in the long term memory. Node-link setups are characterized by Lumsden and Wilson as "the form in which culturgens reside in long term memory" (ibid., 246). Two other forms of memory built up in response to experience are as well important: the episodic memory – containing specific events and particular persons, objects, and actions – and the semantic

[19] In Lumsden's and Wilson's understanding, culturgens can be any cultural trait or type of behavior such as, for example, "alternative tools, forms of dress, words of usage, attitudes toward brothers-in-law, ways of opening mollusks, and so forth." ibid., 103.

memory, storing classes of objects and events, abstracted concepts, even those with symbolic signification. They furnish the elements of the brain's activity called by Lumsden and Wilson a re-fabrication of a satisfying schema of nodes, which normally then becomes part of the long-term memory. A similar procedure of mental operations is used when problem-solving cognitive activities or the creation of new concepts are taking place, that is, through activation of node-link structures or the appearance of new configurations of node connections. All this is based not only on memorization of facts but also on the storage of extended quantities of higher-level schemata and of their combinatory possibilities.

Culture's role from the point of view of genetic fitness is, thus, manifested in bodily movements and explicit behavior. Behind these external facts, however, the mind manifests itself in imposing an ordering and integrating pattern on learning activities and behavioral attitudes through integrating life experiences and keeping in stock alternative schemata and options. In this perspective

> Culture can be heuristically defined as the cognitive and behavioral outcomes of the totality of shared culturgens defined in this new sense. Reification and symbolization are seen as devices for creating and codifying culturgens for more efficient processing, storing, and recall. Language is the means whereby the culturgens are labeled and swiftly juxtaposed to assemble and communicate vastly more complex knowledge structures, such as narratives, instruction, and art. Language further serves to transmit *meaning* from one person to another, quickly and efficiently. Under the influence of the epigenetic rules, the culturgens shared in such a manner will tend to possess similar core meaning and to evoke similar behavior (ibid., 253; italics in original).

CHAPTER TWO

EVOLUTIONARY SALTATION: VIEWS OF SCIENTISTS AND PHILOSOPHERS ON BIOLOGY AND CULTURE

1. Views of Contemporary Physicists

It is truly amazing how much the scientific thinking as a cultural ideology, the tenets of which are untouchable, is dominating the thought of the greatest scientists. Many are not capable to recognize the existence of anything non-physical, that is, *meta*-physical, or even to admit such an eventuality. Therefore, in the scientific ideology, the worse one can say about somebody's opinion is that it is metaphysical. All the great scientists are of course well aware of the problem of human consciousness and of the existence of mental facts. In their writings one can feel that they are disturbed by the problem of mind and by the undeniable differences between cultural worlds in which human beings live. However, few of them can free themselves of the materialistic worldview imposing the physicalist approach, not even as much as to accept the possibility of a parallel ontology of the physical and the mental. This would eliminate in advance the attainment of a unified worldview which, in turn, would practically annihilate the human person's and human culture's autonomy. Against physical reality, or in comparison to the material universe, no autonomous human world can be admitted without degrading science, without giving in to medieval superstitions or without humiliating self-conscious scientists.

How much the problem of evolutionary saltation preoccupies contemporary scientists is evidenced in the recent book of the famous physicist Roger Penrose, *Shadows of the Mind: A Search for the Missing Science of Consciousness*. Although Penrose is still moving within the framework of a deterministic universe of the physical sciences he, however, accepts awareness as a feature of the human mind, as a precondition of the act of understanding which represents the passive side of consciousness, expressing, if taken positively, the "feeling of free will" (Penrose 1994, 37-40). Human understanding and consciousness elude algorithmic description and explanation, therefore mental activities include those as well, which are non-computational.[1] Human communication, thus, is based on shared understanding of meanings between persons, because meanings are directly perceived. This understanding, this becoming directly aware of something, which assures us a "direct route to another person's experiences," is the result of a noncomputational process in the mind.[2]

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[1] "A great deal of human mental activity involves... the application of human consciousness and understanding. My use of the Gödel argument is to show that human understanding cannot be an algorithmic activity. If we can show this in *some* specific context, this will suffice. Once it is shown that certain types of mathematical understanding must elude computational description, then it is established that we can do *something* non-computational with our minds. This being accepted, it is a natural step to conclude that non-computational action must be present in many other aspects of mental activity." Penrose 1994, 51. In the same vein, talking about our innate knowledge of natural numbers, Penrose adds: "One might even say that our concept of a natural number *is*, in a sense, a form of *non*-geometric 'visualization'." Penrose 1994, 59 (italics in both quotations are in the original).

[2] On the philosophical problem of other minds, that is, on the possibility of direct communication Penrose writes: "The 'meaning' of words can be actually passed from one person to another, not because adequate explanations are given, but because the other person already has some direct perception – or 'awareness' – of what possible meanings there

Physical and mental aspects are, however, not completely separable. Some physical laws, at least, must have an incidence on mental activity, though all such laws "are fully describable in fully computational terms" (ibid., 203). After a thorough and detailed search of some aspects of brain activity, Penrose arrives to some tentative conclusions.[3] He summarizes the principal outcome of his reflections thus:

> On the view I am tentatively putting forward, consciousness would be some manifestation of this quantum-entangled internal cytoskeletal state and of its involvement in the interplay (OR) between quantum and classical levels of activity. The computer-like classically interconnected system of neurons would be continually influenced by this cytoskeletal activity, as the manifestation of whatever it is that we refer to as 'free will'. The role of neurons, in this picture, is perhaps more like a *magnifying device* in which the smaller scale cytoskeletal action is transferred to something which can influence other organs of the body – such as muscles. Accordingly, the neuron level of description that provides the currently fashionable picture of the brain and mind is a mere *shadow* of the deeper level of cytoskeletal action – and it is at this deeper level where we must seek the physical basis of the mind! (ibid., 376; italics in original).

Penrose links the physical understanding of consciousness to a fundamental change in the presently held physical view of the universe He expects the explanation of the mental from a deeper and much more advanced knowledge of the shadowy area between quantum and classical physics. It shows the present impossibility of finding an exclusively physical solution to the problem of man's mind and consciousness that the search of one of the great scientists of our time, though producing a study full of remarkable insights, achieved only such meager results!

In the past, for example, Niels Bohr did never thought to apply the relativity principle of nuclear physics to the existence of human worlds, but emphasized his own complementarity principle.[4] He recognizes the difference between biological traits and spiritual traditions, between human phenomena and bodily facts, attributing it to the usage of nonadequate definitions (or vocabularies in Rorty's sense?). As all other physicists, Bohr likes to trace parallels between human phenomena and events in the material world (Bohr 1987, 77). He declares that like in atomic physics where the quantum of action cannot be explained and such an explanation is not required, in biology as well the notion of life is an elementary presupposition, a manifestation of the world in which we live; therefore no particular experimental proofs for it are needed (ibid., 77). Bohr, consequently, acknowledges *sottovoce* the existence of a human world different from the

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could be, so very inadequate explanations can suffice to enable that person to 'latch on' to the correct one. It is the possession of a common kind of 'awareness' that allows the communication between two people to take place... Meanings can only be communicated from person to person because each person is aware of similar internal experiences or feelings about things." ibid., 53.

[3] Penrose first concludes that the existence of consciousness is related to a good functioning of cytoskeletons which he considers to assume the complex control system of the cells' activity, in addition to the conveyor's role of various molecules from one cell to another (ibid., 357-358). Second, he proposes that instead of the dualistic conception of deterministic and indeterministic processes in the framework of quantum coherence, a new criterion, a gravitationally-induced state-vector reduction should be applied to situations when the reductive, quantum processes become operative. He describes this mathematically conceived but noncomputational vector OR (objective reduction) as follows: "We do not seek an absolute measure of gravitational difference between states which determines when the states differ too much from each other for superposition to be possible. Instead, we regard superposed widely differing states as *unstable* – rather like an unstable uranium nucleus, for example – and we ask that there be a *rate* of state-vector reduction determined by such a difference measure. The greater the difference, the faster would be the rate at which reduction takes place." ibid., 339 (italics in original).

[4] "In fact, the unity of the relativistic world picture implies precisely the possibility for any observer to predict within his own conceptual frame how any other observer will coordinate experience within the frame natural to him. The main obstacle to an unprejudiced attitude towards the relations between various human cultures is, however, the deep-rooted differences of the traditional backgrounds on which the cultural harmony in different human societies is based and which exclude any simple comparison between such cultures... Using the word much as it is used, in atomic physics, to characterize the relationship between experiences obtained by different experimental arrangements and visualizable only by mutually exclusive ideas, we may truly say that different human cultures are complementary to each other. Indeed, each such culture represents a harmonious balance of traditional conventions by means of which latent potentialities of human life can unfold themselves in a way which reveals to us new aspects of its unlimited richness and variety." *Natural Philosophy and Human Cultures*. Bohr 1987, II, 29-30.

physical universe, but nevertheless considers that the two are united and obeying similar laws – ignoring, in consequence, the evolutionary leap.

Erwin Schrödinger, showing the influence on his thinking of Indian philosophies and linking his conceptions to the idealistic philosophy of Kant, affirms the identity of the human mind and of the world. He, nevertheless, recognizes the manifold presence of minds and the existence of a unique world with reference to the Kantian way of seeing the mind-world relation:

> The reason why our sentient, percipient and thinking ego is met nowhere within our scientific world picture can easily be indicated in seven words: because it is itself that world picture... The world is given but once. Nothing is reflected. The original and the mirror-image are identical. The world extended in space and time is but one representation (Schrödinger 1958, 52 and 63).

Consciousness, the basis of a unified identity is only experienced by individuals, and is an evolutionary phenomenon together with the mind; both are therefore produced by the individual body. The ontogeny of mental life reflects the phylogeny of unconscious nervous processes; the two are linked through the brain. The brain is a result of the biological process, though the organism contributed to its evolving by using it in accordance with its purpose. Thus, evolution was aided by the cooperation of its product. Finally, consciousness is associated with learning, while knowing or competence is related to the domain of the unconscious (ibid., 5-9).

A few other scientists had somewhat similar thoughts as Schrödinger concerning the relation between mind and the world. For example, Herman Weyl criticized the way in which one postulates, using formalized methods, the existence of the external world because of being placed, as perceiving and active but rational beings, in that world (Weyl 1989, 28). In his lectures on metaphysics and science, he recognized the antinomy between natural determination and freedom in human life, due to our embeddedness in the natural world. Thus, he asserted the contradiction causality and man's freedom – the fundamental tension underlying our existence.

Henry Margenau confesses to be a scientist who defends pluralism as against the dualism of the past ages and the all-pervading monism of scientific worldviews. He is the only scientist who qualifies the relationship between man and nature as *transcendence in continuity and compatibility*, in coherent degrees of existence (Margenau 1984, 40). Compatibility here means that the mind's constructs are constrained by some compulsive features in recognizing reality (for example, some rules of correspondence). Man makes no arbitrary choice in formulating his worldview. Continuity, however, means that the ego or self exists throughout a man's span of life. Margenau's is definitely a dialectical view inasmuch as the world is not preexisting independently of the mind, but the latter must to follow some guiding orientations transmitted to it by perception and experience. He locates the source of the possibility of human transcendence in the indeterminacy of the world, the past being regulated by determinate and determinable causes but the future only by probabilities. Therefore, the freedom of human will is not in contradiction with the scientific world picture, as determinism in respect of future cannot prevail (Margenau 1984, 122). Margenau quotes Pauli (referring to Pauli's study written together with Jung on *The Influence of Archetypal Ideas on the Scientific Theories of Kepler*) to support his thesis about the pluralistic view of the universe: "The only acceptable point of view appears to be the one that recognizes both sides of reality – the quantitative and the qualitative, the physical and the psychological – as compatible with each other, and can embrace them simultaneously" (ibid., 44-45).

Consciousness, which encompasses awareness, is for Margenau "the most immediate personal experience and the source from which all knowledge springs" (ibid., 72). In addition, Margenau borrows from Jung the idea of synchronicity, which replaces causality and permits the simultaneous occurrence of similar ideas and similar phenomena at different places and in different minds based on the fundamental concept of the Jungian collective unconscious (ibid., 132). In the course of evolution, – Margenau is, of course, a Darwinian – conscious creature means the living creature, life is considered as an attribute of

consciousness. It is therefore due to consciousness that in life the second law of thermodynamics loses its validity, negentropy reigns, and order and information normally increase.[5]

It is striking that Margenau, like Roger Penrose, finally looks for the explanation of the existence of the immaterial and conscious mind in the area in which quantum phenomena join classical processes, and compares the mind to a field which is characterized by a lack of spatial position, thus escaping regular scientific methods of investigation (ibid., 89-97). Man's appearance is not accidental, believes Margenau: "His evolution is not merely a matter of chance, [it] is the nonrandom factor of adaptation. The mechanism of adaptation is natural selection" (ibid., 28). But this still does not explain that a saltation occurred in the course of the evolution of man.

2. Views of Neuroscientists and Philosophers of Science

In this section, I shall consider, on the one extreme, the views expressed by Sir John Eccles, including also those he elaborated together with Sir Karl Popper in their dialogue, as well as the ideas of David Hodgson who recently raised the mind/brain problem with the intention to mediate between contradicting theories. On the other extreme, the more moderate physicalist views of J.Z. Young, the physicalist monism of Gerald Edelman and Antonio Damasio, as well as the eliminative materialism of Paul Churchland.

John Eccles thoroughly criticized various forms of materialistic explanations of the relations between the brain, and the mind or consciousness, when he tried to answer the question: how are various levels of consciousness related to specific brain states? First of all, he found that the crudest form of materialistic exposition – there are only brain states and the rest is fantasy – is not only contradicting experience but is, in truth, self-contradictory, as brain states are unable to describe themselves (Eccles 1974, 88). In the second place, Eccles criticized the so-called identity theories or the theory known as epiphenomenalism.[6] He qualifies materialist monism expounded by Herbert Feigl in his study about *The Mental and the Physical* (1967), because Feigl postulates a psychoneural identity between conscious states and components or aspects of operations of brain activity. Eccles' criticism concerns (i) the complete lack of patterned operations in space and time of an almost infinite complexity in the activities of the brain though these patterned operations undeniably characterize conscious thinking and behavior, and (ii) the non-correspondence of mind and brain operations by testifying, as a practicing neuroscientist, that not even one percent of cortical activity can be traced to conscious experience.[7] In fact, Eccles seems to be agreeable with a formula affirming that phenomenal experience is informationally coherent (but not equivalent) with neural events observed in the brain. The identity theory is nothing but a primitive reflexology.

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[5] It is useful to compare here Margenau's view with a different evaluation of the effect of thermodynamic forces on the living world: "In actual fact, whatever its other properties, the evolution of organisms must accord with the entropic changes in the physical universe. At present living organisms exploit, for their maintenance and reproduction, the differences in kinetic energy between regions of space; and at the same time they contribute to the increase of entropy. Life cannot exist without free energy and is constrained in its evolution by thermodynamic necessity... In thermodynamics it has been postulated that entropy may be increasing locally, that in other regions of space it may be decreasing, and that the universe as a whole is in a steady state." Levins, and Lewontin 1985, 19-20.

[6] Daniel Robinson has defined epiphenomenalism in the following way: "It centers on the claim that every psychological event or state is completely and uniquely determined by the physiology of the nervous system and, more specifically, by events in the brain... What dooms ephiphenomenalism is that it must accept the existence of mental states and events, even as it seeks to explain them. But if there are bona fide *mental* events – events that are not themselves physical or material – then the whole program of philosophical materialism collapses." Eccles, and Robinson 1984, 54 (italics in original).

[7] Expressed in a different way by Daniel Robinson: "The plain fact is that virtually none of the predicates ordinarily assigned to mental events can be plausibly assigned to somatic events. Merely on the face of it, there would seem to be no two entities drawn from the universe of realities which are less similar than the mental and the somatic. All the events in one are explicable in the scientific language of *causation*, but most of the truly interesting events in the other seem not to be... Those who would seek to understand why Pericles spoke as he did, or why Smith sold his properties in Wales, or why Jack chose the train over the airplane, will only be satisfied with a *rational* account of such actions." Robinson 1985, 28-29 (italics in original).

Eccles recognizes that although our experience indubitably proves that we can control our thoughts and actions, scientifically it is impossible to given an account of this phenomenon. He feels obliged, as a scientist, to postulate that our thoughts and our wills are able to change "the operative patterns of neuronal activities" of our brains (ibid., 98). If this field of influence of the human mind is exercised not only on one node but on the entire network of nodes reflecting, at the same time, a spatio-temporal patterning, then the integration of neuronal discharges into a modified, patterned operation may be possible.[8] The generally accepted scientific view is based on an ideology, the obligatory postulation by scientists of physicalist determinism as this determinism is not founded on any empirical grounds, the freedom of the will cannot be questioned. Eccles makes reference to the works and conclusions of Roger Sperry who also believed that subjective consciousness interacts with brain processes through having a causal influence on them: "Consciousness is conceived to have a directive role in determining the flow pattern of cerebral excitation."[9]

Like Margenau and Penrose, Eccles also found recently a possible explanation for the activity of consciousness in the area of microphysics. He takes his clue from Margenau who compared the mind to a non-material field, which can be conceptualized in the manner of a probability field (Margenau 1984, 97). If the brain-mind interaction is analogous to a probability field, intentional thinking reflected by mental concentration may cause neural events in an analogous way to the probability fields of quantum mechanics. In this vein, Eccles postulates a microsite hypothesis related to an anticipatory evolutionary event, according to which "the presynaptic vesicular grid provides *the chance* for the mental intention to select *by choice* the exocytosis of a vesicle from a bouton" (1989, 191; italics in original). This may happen over the whole of simultaneously activated spine synapses. When, for example, a sensory input causes excitation of the presynaptic vesicular grids of a dendron, the postulated mental influence would have an opportunity for selecting vesicles already in apposition. Thus, for Eccles, the mind-brain interaction is, at least partially, explained. Mental unity, the basis of the concept of the self, might have been achieved through the frequent recourse to certain neuronal patterns resulting in a "long term potentiation of synapses which would stabilize the neuronal circuits" (ibid., 205). This process may enable the cerebral cortex to build a memory capacity ensuring not only unity but the continuity of the self as well.

In addition, Eccles proposes that all mental activity, especially the uniquely human so-called gnostic functions (expression borrowed from Sperry), are related to the neo-neocortical areas which show, only in the case of *Homo sapiens* among all living creatures, asymmetrical dispositions. These dispositions, which are the result of the slow, delayed processes of ontogenesis, potentially almost doubled the cortical capacity.[10] Thus he concludes "the gnostic functions develop in their extreme diversity in relation to the experiential world which interacts with the neo-neocortex by a trophic process of self-creation and self-organization" (ibid., 215).

The dialogue between Eccles and Popper takes its departure from the principle that cultural evolution continues biological evolution by other means.[11] This assertion echoes what Eccles already emphasized concerning the non-closedness and non-self-contained character of the physical world. Biological evolution is genetically coded and depends on inheritance, whereas cultural evolution, which is not genetically coded, is the result of man's own activities and transmittable only through socialization and existing institutions, – the

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[8] "Thus, in general, the spatiotemporal pattern of activity would be determined not only by (i) the microstructure of the neural net and its functional properties as built up by genetic and conditioning factors, and (ii) the afferent input during the period of short term memory, but also (iii) the postulated 'field of mind influence'." Eccles 1974, 101.

[9] Sperry, Roger W. 1969. "A Modified Concept of Consciousness." *Psychological Review*, 76: 532-536.

[10] Speaking of the hominid evolution, Eccles remarks: "Cortical asymmetry is the key note of its success. The 'old' neocortex with its sensory and motor functions was retained unchanged with its symmetric functions. The maximum evolutionary advantage of neocortical asymmetry can be calculated. Neocortex of *Homo* = 3.2 neocortex of chimp, so if all new cortex is duplicated, there is a 3.2-fold increase in cerebral function. If the new additions are asymmetrical and not duplicated there is a 5.4-fold increase (1+2.2+2.2) in cerebral potentiality." Eccles 1974, 216 (italics in original).

[11] Rensch expresses a somewhat similar view when he says concerning the evolution of *Homo sapiens* (though in comparison with animal phylogeny) that "two different types of selective processes are at work, differing chiefly in intensity. First we have gradual selection (as already described) between more or less advantageous rival variants within a community (corresponding to infraspecific selection); and secondly, rapid and intensive selection, possibly trade rivalry, competition or even war between whole communities or peoples (corresponding to interspecific selection)." Rensch 1972, 116 (italics in original).

tradition of human communities. Popper, in agreement with the above-mentioned principle, suggests that the human self is the result of inborn dispositions (the genotype) and of life experience (the phenotype), but in the latter domain, it is a result especially of experience in society, in the human community.[12] Popper correctly insists that all learned adaptations of human beings are based on the inherited genome, which endows the organism with the aptitude to acquire new means of adaptation in changed circumstances.[13] Man, however, transcends his natural world; "I conjecture," said in the dialogue Popper, "that only a human being capable of speech can reflect upon himself," is conscious of his own life program and is able to critically revise it (Popper, and Eccles 1983, 144). Only such a human being is a moral person due to his consciousness and self-critical capabilities.

Most importantly, both Eccles and Popper insist on the integrative function of the conscious self through its influence on the brain. According to Popper, who quotes Konrad Lorenz, in every circumstance the relevant aspects of a situation must be signaled to the central, unified and coordinating organ. The latter chooses, in Lorenz' view, the best way to act "in the situation just existing [and] can contribute to survival... The greater the number of possible ways of behavior, the greater the achievement which is required from the central organ."[14] This role of the mind surpasses the description most frequently given of it as a stream of consciousness because it supposes a selective, perceptive apparatus with abstracting capabilities, and an incorporated program of selection, periodically adjusted in accordance with the momentarily available repertoire of behavioral responses, – the mind establishes its genidentity. In fact, in Eccles' words, "the self-conscious mind... [is] merely reading out from this neurally integrated ensemble" (ibid., 471). Eccles agreed with Popper when he suggested that there are temporal gradation patterns in the way cerebral processes happen. Patterns are for him among the most important signposts in respect of the brain's operations because the immense number and complexity of possible permutations and combinations of cell associations. The mind, in Eccles' vision, operates on two levels of integration. On the first level (ordinary performance), integration is carried out through correlated actions and movements constituting appropriate responses in a given situation. This integration represents an operational unity and is the basis of the materialist-monist concept, reduced to behavioral explanation. On the second level, that of experiential unity, Eccles finds a dichotomy because the mind's activity is twofold: reading out the operation of neural events, on the one hand, and the scanning of the entire operative field of the brain, on the other. Through this searching process – which involves shifting its interest, choice or drive on this or that neural event – the self-conscious mind selects an ensemble of performances constituting the response required. "The self-conscious mind is in this way exhibiting its ability to lift itself out of strict coherence with neural patterns as they are at any one instant" (ibid., 472-475).[15]

Underlying the mind are man's unconscious dispositions, which are extremely important from the point of view of the unity of the self and its temporal continuity. In the unconscious is buried the memory – "the ability to recall what has happened to us in the immediate past" (ibid., 130) – which is not only the foundation of the self's continuity but also contains its innate dispositions, its unexpressed leanings, and its repertoire of behavioral responses. Eccles clearly summed up the mind's operations through memory as follows:

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[12] I am not concerned here with Karl Popper's distinction between three worlds: the physical world, the self, and the world of intellectual activity and achievements. I am not convinced of the rightfulness of this presentation, – although I am in full agreement with the basic idea expressed by Popper in his own way.

[13] See on the capacity of language learning, Popper, and Eccles 1983, 48.

[14] Lorenz, Konrad. 1976. "Die Vorstellung einer zweckgerichteten Weltordnung." *Österreichische Akademie der Wissenschaften*, Phil.-historische Klasse. 113: 37-51.

[15] Popper explains this exposition of the mind's activity saying that "in a way the self-conscious mind has a personality, something like an ethos or a moral character and this personality is itself partly the product of actions done in the past. To a certain degree the personality somehow really does form itself actively. Admittedly, it may be partly pre-formed by its genetics. But I think that we both believe that this is not the whole story, and that a greater part of the formation is really achieved by the free actions of the person himself. The personality is partly a product of its own free actions in the past. Now this is an important but very difficult idea." Popper, and Eccles 1983, 472-473. Eccles adds later that "in the present theories of neuronal machinery there is no explanation whatsoever of our ability to integrate into a coherent picture the disparate neuronal events arising in the visual centers as a consequence of a retinal input." ibid., 480.

> The self-conscious mind is in fact always probing into the brain in some manner to retrieve from there or to attempt to retrieve something which it wants back, some desired input from the brain. Now this must involve an immense learned performance. You have to conceive that the whole of our civilized development, of our cultural development, consists not in having a brain with all of this storage, but in having a self-conscious mind that can retrieve and know how to retrieve subtly and effectively from this storage. It has some way of playing into this immense store of memory that is in the spatio-temporal patterns of connectivity in the neural coding, and of receiving back from that (ibid., 489).[16]

In the evolution he traced, Eccles adds to memory storage another fundamentally important perspective of the activity of the mind: the mind's antedating capacity, a phenomenon that cannot be explained by the functioning of the neural machinery. This ability also belongs to the integrating mental process, to finding out the most adapted responses to various situational logics and environmental stimuli.

Eccles and Popper tried to establish a parallelism between mind and matter, but Eccles recognized that the parallelist view does not explain at all why, from the point of view of biology, the self-conscious mind should have evolved. What is the use of the mind if it does not represent for man survival value for which selection pressures developed it? The mind must be able to bring about changes in the operations of the brain and it must be capable to impose some modifications in the world (ibid., 516). The self-conscious mind succeeds, then, to give a unified interpretation of the world, – coherent, significant, and meaningful.

David Hodgson endeavored in a recent work to correct the usual scientific description of the mind's functioning. He bases his analysis on the quality of certain types of information reflected by human reasoning. Hodgson recognizes "that all mental events, including those in sense perception, emotion, acting, and thinking, have associated brain events which in some sense encode them" (Hodgson 1991, 106), He, however, emphasizes the fact that plausible human reasoning does not follow precise and unambiguous rules.[17] Plausible reasoning deals with incommensurable things and considerations, therefore the only way to arrive to right conclusions in particular cases is to make a judgement, or by weighing the alternatives.[18] For Hodgson, in consequence, "each mental event is unique, and it seems impossible to predict its effects, because it is never possible to *quantify* the differences from other mental events, or the effect of such differences; mental events are just not measurable, even in principle, so cannot (as mental events) be governed by quantitative deterministic laws" (ibid., 171; italics in original).

The external world may only be partly entering human experience, as it is totally outside it, or is even beyond human perception because only a human being's conscious experiences constitute his world and give meaning to the external world, – a world created by minds which simultaneously perceive wholes and their parts as well. Without, experiencing the world, however, no individual world, no reality could be constructed. In this sense, knowledge is conscious perception and conscious reasoning, and even *a priori* knowledge has to be assessed and assimilated by such conscious reasoning. The ability to reason is itself such an *a priori* or, perhaps, innate knowledge:

> Mind and brain are both manifestations of the same underlying reality, but only if the brain here is understood not as the detectable macroscopic object, but as the quantum reality[19] underlying both this object and the mental

[16] Popper distinguishes two kinds of memory: the implicit and the explicit. ibid., 490-493.

[17] He quotes the Hungarian mathematician George Polya who wrote "Strictly speaking, all our knowledge outside mathematics and demonstrative logic... consists of conjectures" and that "we support our conjectures by plausible reasoning." Polya, George. *Mathematics and Plausible Reasoning*. Princeton, N.J.: Princeton University Press, 1954, 1: v.

[18] "I do not deny," writes Hodgson, "that to some extent human reasoning is supported by a mechanistic instantiation of a formal system. But I say that formal reasoning is an invention of human reason; and that this human reason itself transcends formal reasoning, and in its most important aspects involves informal plausible reasoning." Hodgson 1991, 140.

[19] Hodgson finds a close relationship between mental events and quantum reality – similarly to Margenau though quite differently from Roger Penrose – in particular because both are characterized by non-locality. He even suggests that mental events bring into a simultaneous vision, non-sequentially, spatially separated physical events proving by this their indifference to spatial separation. ibid., 383-385.

> events of consciousness. Mind and brain are two manifestations of, and viewpoints towards, a single reality; but with important differences, in particular in relation to the development over time of this reality and (specifically) the causes and explanations of such development (ibid., 381).

Hodgson's argument concerning the importance of spatio-temporal dimensions of mental operations is somewhat similar to what Eccles emphasized, but the exposition of his ideas does not show with clarity whether these spatio-temporal patterns are characterizing or not the brain as well as the mind. Eccles made the distinction very clearly that such patterns are not present in neuronal events.

One of the well-known expositions of the physicalist-monist thesis was given by J.Z. Young who postulated that "consciousness is an aspect of the functioning of the brain," and in order to be able to avoid to designate the mind as a thing, he declared that "consciousness and mentality are characteristic properties that accompany certain activities of the brain" (1988, 12). The postulate (it cannot be taken otherwise as no empirical evidence is referred to) asserts that even though all mental events are associated with changes in cerebral operations, nevertheless, many brain activities are totally independent of consciousness. The brain is a complex entity in organization, properties, and specific actions. It is constituted by heredity as well as learning, the importance of the latter being proven by the fact that mental activity uses an enormous quantity of information and knowledge. Transmission of information, genetic or otherwise, is a fundamental characteristic of living beings, and makes communication possible. This information has an abstract quality like speech or writing in which physical signs carry the abstractly expressed information.

Brain activity is continuous, even without external stimulation, and follows in-built programs on which natural selection is exerting its influence. The programs represent neuronal setups, originating in the past, sort of repertoires of possible modes of behavior or action, "or coded lists of instructions recorded in some physical form in advance" (ibid., 20). In Mayr's sense of teleonomy, Young recognizes that living organisms' actions are directed toward ends, consisting in a particular, new state of the organism. Through signals conformed to the selected program or coded instructions, the brain sends commands to ensure survival. The success of these operations shows that the program-repertoires must have been adapted to the environment and, therefore, are representations of the surrounding world. The functioning of the system of the brain (as Young calls it) is not really known and, the phenomenon of intentionality, that is, how the brain initiates an action or a behavioral response to an environmental stimulus, cannot be explained by neuroscience – as yet.

Life is the continuity of experience in accordance with rhythmical patterns of activities provided and regulated by the brain; thus, we depend on the modifications of these patterns from one instant to the other. In a holistic vein, Young affirms that perceptions are globally conceived and based on an interdependent whole of expectations elicited by internal or external events, and lead to action or further expectations. This picture represents a sort of communication network (transmission of influence with his expression) inside living systems, between these systems, and between them and the world. In this way, a patterned order is maintained among the various organisms and their environment, delaying the effect of the second law of thermodynamics because, in Young's definition, information is "a characteristic property of signals and codes that makes possible the collecting and expanding of energy to delay the increase of entropy" (ibid., 29). The transmission of genetic information passes through the usual physico-chemical channels; however, the sequence of responses triggered by the information signals, as much as their prediction even within statistical limits, is historically conditioned. This is the reason why intentionality cannot be explained in the present state of science; as it is "the state of an individual who is planning or expecting an action with reference to some condition of affairs that is not immediately present" (ibid., 53). Human thought cannot be explicated by scientific thinking – especially the relations of representations of the self with other living organisms – though we know that the brain's operations follow parallel lines instead of a logical sequence.

In the course of adaptation to the environment each individual life acquires a unique character. Living organisms are normally in a steady state because brain-controlled movements aim at *homeostasis* through the sequence of choices and adaptive decisions (called by Young a perpetual creative activity) and in the form of mutations and recombination of genes. It is a striking feature of Young's description of biological processes that he offers a very simplistic schema. He mentions neither the interplay between the genotype and the phenotype nor the various aspects of the adaptive process.

Gerald Edelman developed a particularly interesting theory of the brain and mind, specifically with respect to the role of consciousness. He links mental activities to the morphology of the human mind enabling it to carry out these activities. The three pillars of his theory are: group selection, reentry processes, and global

mapping (Edelman 1992, 83). The mapping structures include the so-called classification couple – two functionally different maps (neuronal groups) separately receiving signals from other brain maps and from the world, and communicating through reentry modalities, – which are capable of producing new signals in the form of a *recursive synthesis* transmitted, after processing by global maps, to other parts of the brain for follow-up action. Global mapping is a higher-order structure which consists in synthetizing signals from multiple motor and sensory maps through reentry processes. Such global mapping produces selections among the inputs of local maps and proceeds with their categorization. Taking into account the constraints imposed by internal, value criteria. These value criteria are determined by evolutionary requirements in view of the maintenance of life-supporting physiological systems as well as in view of indispensable adaptation in changing circumstances.

From the point of view of the mind and consciousness, another fundamental triad in Edelman's theory is: perceptual categorization, memory, and learning (ibid., 100). Perceptual categorization is a result of global mapping activities; memory, an ability to repeat performance and procedural in its nature, is an enhancement of already existing capacities to categorize; whereas learning connects categorization to behaviors representing adaptive values. Memory, in this holistic perspective, means a continual process of recategorization because of new associations arising in new contexts, changing inputs and stimuli, and different combinations of neuronal groups. The degree of generalization achieved is always correlated to a certain inexactitude because all the activities involved are probabilistic in nature.

Finally, a third indispensable step is concept formation. Relational conjunction of these different capabilities can only be created through an adequate method of conceptualization in general and abstract terms:

> An animal capable of having concepts identifies a thing or an action and on the basis of that identification controls its behavior in a more or less general way. This recognition must be relational: It must be able to connect one perceptual categorization to another, apparently unrelated one, even in the absence of the stimuli that triggered those categorizations. The relations that are captured must allow responses to general properties – 'object', 'up-down', 'inside' and so on. Unlike elements of speech, however, concepts are *not* conventional or arbitrary, do *not* require linkage to a speech community to develop, and do *not* depend on sequential presentation. Conceptual capabilities develop in evolution well before speech. Although they depend on perception and memory, they are *constructed* by the brain by elements that contribute to both of these functions (ibid., 108; italics in original).

It is obvious that these conceptual categorizations (operating even without immediate inputs) are heterogeneous and general as they involve relations with the real world, with memory and with past behavior forthcoming from various global mappings. Concepts, mediating all these elements, categorize, discriminate, and recombine them according to certain (for example, sensory) modalities. In addition, they activate, recombine, compare or reconstruct portions of past memories from global mapping areas of the brain. In the course of conceptual categorization the brain categorizes its own activities.

In Edelman's perspective, consciousness is a phenotypic property of evolutionary origin, easily inserted in the world picture of contemporary physics, which is not completely sufficient to explain mental phenomena. His greatest problem with consciousness and the functioning of the mind is the existence of *qualia*, "the collection of personal or subjective experiences, feelings, and sensations that accompany awareness" (ibid., 114). Being personal and subjective, *qualia* cannot be dealt with by scientific methods. Trying to overcome this difficulty, Edelman falls back on the age-old notion of intersubjectivity. *Qualia* being, probably, also experienced by other conscious humans beings, the intersubjectively established qualia-experiences can serve as referent for scientific investigations.

It seems to me that the main contribution of Edelman's theory to the analysis of consciousness is his distinction between primary and higher-order consciousness. Primary consciousness corresponds to what otherwise one calls awareness, that is, being mentally aware of present occurrences in the world, which means that the temporal dimension is completely absent at this level of consciousness. It is made possible by a special reentrant circuit in the brain that "allows for continual reentrant signaling between the value-category memory and the ongoing global mappings that are concerned with perceptual categorization in real time" (ibid., 119). This special circuit processes simultaneously all conceptual categorizations. Fundamental for the correlative function of higher-order consciousness is the juxtaposition of the (biological) self and the not-self, the world; second, the result of the interaction between world and self, the value-category memory;

and, finally, the parallel or simultaneous categorizations of each sensory modality thus obtaining a real time dimension, the present.

Higher-order consciousness is based on the immediacy of perceptions, on direct awareness as phenomenal experience. However, it principally consists of (i) concepts such as self, past, future, and *qualia*, concurrently categorized by global mapping areas; (ii) the symbolic memory which enables it to envisage the temporal dimension of human life,[20] and (iii) brain repertories instrumental in delaying responses through categorization, comparison and employment of symbolic means. In higher-order consciousness, the notion of self becomes a personal self in the social sense (constructed as a conceptual model) with the correlated capability of recognizing a subject-predicate relationship. This enables each individual to create his own world composed of recalled inner events, of imagined events, and of perceptually experienced outside events. In conclusion, as Edelman recognizes that "the forms of embodiment that lead to consciousness are unique in each individual, unique to his or her body and individual history" (ibid., 136), it is evident that he could not resolve either the problem of evolutionary saltation, to explain in physicalist terms the existence and transcendence of man.

Antonio Damasio considers uses the notion of the self as the indispensable basis, cognitively and neurally, of the phenomena of consciousness and self-awareness. He does not commit himself neither to the uniquely integrating role of the self in mental activities, as Eccles, nor to the identification of one particular part of the brain with the self. Two sets of representation, regularly reactivated, constitute the neural basis of the self: first, those of key events in an individual's life which permit the continuous affirmation of identity (here he also includes like Eccles and other neuroscientists a "memory of possible future"), and, second, primordial representations of the individual's body as the locus of the self through collective representations of the body's features (Damasio 1994, 238-239).[21] Human subjectivity, corresponding to the image of the self, depends on the "brain's creation of a description, and on the imagetic display of that description" (ibid., 240). It is an unconscious process from the point of view of the brain and of the self, but in case of perturbation of the organism's state, the description and image become perceived by the metaself, who is itself a process and a purely nonverbal construction. Subjectivity enters the scene when in the awareness not only a description and the image of a perturbation is recorded, but when an organism reacts to an object of representation and the self is consecutively changing as well.

Damasio sees the source of subjectivity in the interface with an external world, perhaps in the process of reification (ibid., 242-243). As a conclusion with sociocultural implications, Damasio points out that reason is a product of some brain processes with an inherent drive, and connected, through anatomical and functional channels, to the production of feelings. Descartes made a grave error in introducing dualism in the picture about man. There is no dualism but simply physicalist monism, and Damasio expresses his critique by insisting on the fact – like philosophers such as Heidegger – that *being is the foundation for thinking and reasoning* and not vice versa (ibid., 248).

The most radical and aggressive among the philosophers of science is Paul S. Churchland. Following the well-known rules of positivist methodology according to which one can only proceed with an explanation when covering laws determine the relationship between the *explanans* and the *explanandum*, he analyzes

[20] "Conceptual categorization works from within the brain, requires perceptual categorization and memory, and treats *the activities of portions of global mappings* as its substrate. Connecting the two kinds of categorization with an additional reentrant path for each sensory modality (that is, in addition to the path that allows conceptual learning to take place) gives rise in primary consciousness to a correlated scene, or 'image'. This image can be regenerated in part by memory in animals with consciousness, but it cannot be regenerated in reference to a *symbolic* memory... The addition of a special symbolic memory connected to preexisting conceptual centers results in the ability to elaborate, refine, connect, create, and remember great numbers of new concepts." Edelman 1992, 125, 130 (italics in original).

[21] It is interesting how Damasio's description of the temporal dimension of the self is partially reminiscent to that of Bergson and to those of some phenomenologists', in particular to Husserl's and Heidegger's, innate time-consciousness: "At each moment the state of the self is constructed, from the ground up. It is an evanescent reference state, so continuously and consistently *re*constructed that the owner never knows it is being *re*made unless something goes wrong with the remaking. The background feeling now, or the feeling of an emotion now, along with the non-body sensory signals now, happen to the concept of self as instantiated in the coordinated activity of multiple brain regions. But our self, or better even, our metaself, only 'learns' about that 'now' an instant later... Present continuously becomes past, and by the time we take stock of it we are in another present, consumed with planning the future, which we do on the stepping-stones of the past. We are hopelessly late for consciousness." Damasio 1994, 240 (italics in origial).

the commonsense or folk psychology which is juxtaposed against the scientific explanation of mental events as a would-be scientific explanatory hypothesis. As an eliminative materialist, Churchland finds this so-called folk psychology as thoroughly inadequate in explaining mental or, rather, neuroscientific phenomena, and as usual in the history of scientific progress, a better and more explanatory theory is therefore expected to replace this confused world of ideas. For Churchland, what the common human view cannot explain is more important than what it can. His favorite example as a convinced cognitivist, concerns the learning process, in particular large-scale conceptual changes in their pre-linguistic or non-linguistic form, because the common human view is constitutionally incapable to explain such changes through the manipulation and storage of propositions.

Though Churchland recognizes that the global scientific view of man's evolution is still radically incomplete, the only coherent exposition of the human species' evolution can exclusively be put forward in the perspective of physics and, in general, of the natural sciences. He emphasizes the coherence of the neuroscientific explanation with the physicalist world picture, and goes on to praise the "greatest theoretical synthesis in the history of the human race" (Churchland 1989, 8-9):

> It is very important to point out that eliminative materialism is strictly *consistent* with the claim that the essence of a cognitive system resides in the abstract functional organization of its internal states. The eliminative materialist is not committed to the idea that the correct account of cognition *must* be a naturalistic account, though he may be forgiven for exploring that possibility. What he does hold is that the correct account of cognition, whether functionalistic or naturalistic,[22] will bear about as much resemblance with folk psychology as modern chemistry bears to four-spirit alchemy (ibid., 15; italics in original).

Language use is not highly valued in such a neuroscientific perspective, it is not ranked among the cognitive virtues, and the dominant operative conception of cognitive activity is gradually separated from the conceptual formulations like Chomsky's and categories of linguistics.

Churchland is a philosopher of science, and his extremist scientist views lead him in two curious directions. He derives from his scientific convictions a sort of skepticism, implying a radical revision of what he takes to be rational cognition. This concerns, first, the category of things philosophers call natural kinds because, in his own consequential way, he believes that nothing exists which is not theory-laden or, in other words, the relations of which with the natural world are not intensionally conditioned (intension being the set of semantically important sentences in which a term figures). Churchland generalizes the intension-dependent character of our extensional references (extension is intension plus context of the ongoing operations in the brain) and declares, peremptorily, that most of our commonsense vocabulary may be entirely without reference. Observations are illusions as they do not refer to real extensions. He juxtaposes what is referentially or causally correct, meaning that referential connection might be wrong or inexistent even though causal connection – the primary link between words and reality – remains.

Most interestingly, then, Churchland's argument goes in the direction of a cognitive relativism conditioned by cerebral activity: "There seems to be nothing in the world that we can point to as the distinguishing feature of lawful regularities" (ibid., 293).[23] Therefore, Churchland creates his own so-called natural kinds, which are kinds determined by the laws of nature (mass, length, duration, charge, color, energy, momentum, etc.). These kinds, nevertheless, may also create some problems due to the nature and hierarchy of natural laws. In view of these difficulties, he suggests to call these kinds practical kinds, and the laws, which determine them practical laws. Such universal statements (conjunction of a genuine law with some stipulative definitions) constitute the basis of practical explanations in respect of cognitive problem. The relativity of

[22] Churchland sees the difference betwen naturalistic and functionalist views in that the latter admits the characterization of internal states as a causal network between sensory stimuli, overt behavior and such states themselves. The functionalist view being an abstract conceptualization, it is able to accomodate a heterogeneous variety of physical processes obeying to different laws, even if their physical characteristics are dissimilar. This phenomenon of multiple instantiation justifies the functionalist approach. Churchland 1989, 10.

[23] "The extensions of our terms are stably fixed neither by analytic truths, as in the orthodox empiricist tradition, nor by indexical/recursive pointings, as in the Putnam-Kripke alternative. They are not stably fixed by anything, since they are not stably fixed at all." ibid., 287.

practical kinds is, however, evident from Churchland's way of creating different worlds, a possible move because practical kinds concern relations or set of relations in nomically possible worlds.[24] In the real world, objective necessities and possibilities reflect actual events, but are underdetermined by such events, – and one wonders what are the relations or correlations, if any, between the real and the nomically possible worlds. For Churchland, the fundamental structural limitations of language make it possible to decide empirically whether there are or not natural kinds. This leads him to a strange prophecy for somebody who is a philosopher of science and, in addition, a believer in scientific progress:

> The idiosyncratic linguistic structures we call theories and even the idiosyncratic neural systems we call brains, will prove to have fundamental shortcomings *qua* media for models of reality... This might leave us with a medium or system of representation in which nothing *answers* to the notion of a universal generalization or the notion of a predicate (ibid., 294; italics in original).

The second curious direction in which Churchland's scientism leads him is the foundation of morals. There is, in his perspective, a grave epistemological problem in relation to morality because humans have no sense organ for perceiving moral facts and, in consequence, it is not possible to ground morality in one or another aspect of the material universe. Nevertheless, he assimilates objective moral truths to scientific truths, and with the help of this move, resolves the problem. He takes his cue from neurocomputational models in which knowledge acquisition is clearly practical, it is learning *how*, and knowledge is measured by the quality of continuous performance. In the brain, discriminatory capacities are based on so-called hidden layers, which are located between the initial layers through which passes the input, on the one hand, and the output layers by which the discrimination reached is coded, on the other hand. In many cases therefore the whole network of layers is involved in the management of relevant (and mostly ampliative) discriminations. There is some resemblance between Eccles' innovative theory about the formation of long term memory and Churchland's statement that abilities of immediate and automatic discrimination "represent the normal and almost instantaneous operation of a massively parallel network that has been trained over time to be sensitive to a specific range of environmental features" (ibid., 299).

Social and moral features are discriminated in the same way. Thus, the child's learning is not simply the internalization of a set of principles, discursively transmitted, but a true practical experience, and a moment of learning something about the world. The child learns practical wisdom, the configuration of social space and the possibilities of moves aiming at survival (ibid., 300). Moral judgement, then, is a consequence of the internalized prototypes activated in a concrete situation. Life experience, of course, regularly changes the various prototypes stored in the brain. It is life experience, taking place in a given moral framework, which secures the factors driving moral learning, but moral theories impose unity of disparate concepts and convictions, that is, on the fractured moral consciousness. "Moral knowledge thus has as genuine a claim to objectivity as any other kind of empirical knowledge" (ibid., 302).

[24] Nomically possible worlds are those in which "laws are distinguished of being true in all of them, while accidental universals are only true in some." ibid., 293.

CHAPTER THREE

EVOLUTIONARY SALTATION: VIEWS OF SOCIAL SCIENTISTS ON BIOLOGY AND CULTURE

With the exception of anthropologists and ethnographers few social scientists were intrigued by the relation between biological and cultural evolutions. For anthropologists and ethnographers it was natural that they became involved in the debates concerning the *otherness* of human evolution as against the evolution of the whole inanimate and animate nature. They encountered human diversity and the relativism of worldviews, customs, practices and principles when studying different cultures and civilizations, differences that could not be explained in terms of the evolution of genotypes. They even could not be explained by the interaction of genes with the environment producing, frequently, phenotypes considerably differing from each other. Social scientists, other than anthropologists, simply accepted, without even discussing the problem of how natural selection produced man, either the prevailing scientific worldview dominated by physicalist monism in various forms of identity theories, or the dualist position taking for granted that man belongs to two worlds. These social scientists were only concerned with society, its social and cultural aspects, its institutions and organization, its history and its future. That evolutionary thinking is itself historical thinking; that it would be difficult to achieve an overall view of the human predicament without taking into account how man, as he is today, came into being; that humanity's future cannot be envisaged without a backward look on our species' evolutionary past, – all this was tacitly supposed to have been said and settled by biologists, philosophers, and other specialists such as anthropologists. In the pre-modern age, the dominant relationship being the one of God and man, the relation of biology and culture was clarified by the biblical exposition of man's origin. In the modern epoch, however, some felt only the necessity to make even just a few remarks to explain our species' appearance in the universe in works of sociology, economics, law, history or philosophy, with such exceptions as Immanuel Kant.

In the following I shall expose some tentative conceptualizations by a few anthropologists, ecologists or philologists such as Julian Steward, Marshal Sahlins, Robert Boyd and Peter Richerson, Naom Chomsky as well as William Durham.

1. Steward's Multilinear Concept of Evolution

Steward was mainly preoccupied by cross-cultural regularities, and as a consequence, he worked out a conceptualization of multilinear cultural evolution of different human groups. The concept of multilinear cultural evolution affirms "that certain basic types of culture may develop in similar ways in similar conditions but that few concrete aspects of culture will appear among all groups of mankind in a regular sequence" (Steward 1972, 4).

Multilinearity may be diachronic or synchronic. In the first case, the succession of similar configurations of cultural phenomena manifests itself in a regular and predetermined sequence, obeying to laws of evolution. In the second case, phenomena are functionally interrelated without being successively located in the temporal dimension and without reflecting historical change or a developmental process. Cross-cultural regularities, which are the basis of the multilinear cultural evolution concept, are, in Steward's view, a result of adaptive processes. Therefore in this type of evolution there cannot be any *a priori* schemes or laws. In

consequence, and in agreement with the views of the sociologist Niklas Luhmann, cultural development tends towards "increasing complexity and successive levels of sociocultural integration" (ibid., 5).

In considering cross-cultural regularities, Steward distinguishes phenomena in accordance with their functional role because forms, patterns, and structures vary enormously. Probably taking a cue from Weber's ideal-types, he constructs cultural types and sees recurrent constellations of such types as expressing, through functional interrelationships, (i) similar adaptive moves due to similar environments, and (ii) similar levels of integration. Cultural changes in history are thus characterized by specific organizational types and levels. Steward's picture of culture as an end-result of evolutionary adaptation is completed with reference to interaction of culture and environment in which the potential variation of configurations and the influence of historical factors are evidently possible and represent nonevolutionary cultural changes.

In respect of organic and cultural evolutions, Steward not only refers to what Kroeber stated almost a half a century ago that cultural processes are additive and cumulative whereas organic evolution is substitutive, but he analyzes extensively the differences between them. Cultural evolution is the extension of biological evolution, but cultural evolution became independent of biological life and follows its own basic principles. It uses such specifically human attributes as speech, symbolization, reasoning, or manipulation of tools. He, therefore, concludes:

> In biological evolution it is assumed that all forms are generically related and that their development is essentially divergent... In cultural evolution, on the other hand, it is assumed that cultural patterns in different parts of the world are genetically unrelated and yet pass through parallel sequences. Divergent trends, which do not follow the postulated universal sequence, such as those caused by distinctive environments are attributed only secondary importance (ibid., 12).

In Steward's evolutionary perspective, evolution stands for qualitative distinctiveness corresponding to successive stages, not to particular traditions or cultural configurations. This distinguishes his views from the type of relativism that attributes qualitative distinctiveness to the particularity of one culture or one tradition. He, therefore, admits, *sotto voce*, the idea of cultural progress. Though cultural activities meet certain biological needs, the latter do not explain the characteristics of the former because responses can be very different in accordance with prevailing circumstances and with the interaction between man's physical nature and cultural features. As examples of culturally produced diversities, Steward mentions different ways of reasoning the criteria which have to follow an orderly pattern, but representing different creative aptitudes in ethics, value systems, religions, philosophy or art. These activities must form with other aspects of a given culture a coherent whole. Culture patterns make sense only if they are applied to a community and not a culture area, because it is only in such communities – for example nations – which cultural activities are operating as integrative forces.

There are two other important aspects of cultural evolution which were brought out by Steward: (i) that "genuine parallels of form and function develop in historically independent sequences or cultural traditions" (Steward 1977, 14);[1] and (2) that these are the result, in each case, of independent operations of an identical causality. These phenomena presumably lead to the determination of cross-culturally recurrent patterns and similarities which, properly reflecting such interrelationships, may be compared to laws.[2]

Culture manifests itself in societies. Social and cultural change, though closely connected, is operating independently of each other. "The nature of any social change is determined by the basic culture," but social changes are not generally followed by cultural changes (ibid., 225). When the same cultural heritage

[1] "In the early irrigation civilizations of the Middle East, Asia and America the inventions were remarkably similar and ran extraordinarily parallel courses through several thousand years. There was clearly a close connection between large-scale irrigation agriculture, population increase, the growth of permanent communities and cities, the rise of specialists supported by agricultural workers, the appearance of unprecedented skills in technology, the need for a managerial class, and the rise of states." Steward 1977, 62.

[2] "Multilinear evolution is essentially a methodology based on the assumption that significant regularities in cultural change occur, and it is concerned with the determination of cultural laws. Its method is empirical rather than deductive. It is inevitably concerned also with historical reconstruction, but it does not expect that historical data can be classified in universal stages... What is lost in universality will be gained in concreteness and specificity." Steward 1972, 18-19.

determines the structure and different functions in several societies, a sociocultural whole is formed, supposedly what we call today civilizations, which represents in the area it occupies a developmental continuum in the sense of a progression from simple to complex:

> A sociocultural system is a unit, the social segments and institutions of which have a significant degree of interrelationships and functional interdependence. Any given sociocultural system, however, is an empirically derived construction, which presents a particular kind of society in a particular developmental continuum (ibid., 225-226).

This conceptualization of sociocultural systems – civilizations – has three consequences in Steward's presentation: first, it has to be decided in each specific context where to draw the line between levels of development taking into account the continuous succession of genetically interrelated but qualitatively different, new sociocultural units; second, such a concept of sociocultural systems renders impossible to appraise cultures – their structures, functions, and values – in one world area in accordance with the constitutive elements of another; and, third, because causal relationships are involved, sociocultural systems vary according to types, organization, and integration at different levels. Furthermore, it is a most important insight that "*modernization is brought about by internal evolutionary processes which are initiated by factors in the larger context, mediated to local societies by various means, and manifested in a variety of sociocultural transformations*" (ibid., 323).

2. Sahlin's Specific and General Cultural Evolution

Sahlins affirms, with reference to Steward, that cultural evolution represents an extension of biological evolution, and he constructs his multi-stage model on this basis. He conceives of biological evolution as moving from homogeneity to heterogeneity, without precise direction, due to changes in gene frequencies. In addition, he borrows from Julian Huxley and Alfred Lotka the idea that evolution is synonymous with more efficient utilization of the earth's resources, as specified by the Second Law of Thermodynamics. In their specific way, Sahlins and Service link cultural advancement to what I call the transcendence in human evolution:

> Culture is the superorganic means available to the human species for utilizing the earth's resources in the service of survival; accumulation of experience through symboling permits improvements in this endeavor; hence, cultural evolution in particular is part and continuation of evolution as a totality (Sahlins 1982, 8).

Sahlins proceeds to distinguish two ways in both types of evolution. First, the differentiation-process creating diversity through adaptive modification leads the species' phylogenesis toward ever higher stages, corresponding to a kind of biological relativism. Diversification is due to reproduction and inheritance, the general progress is a consequence of adaptive specialization relative to the given environment. Higher forms are frequently more generalized, that is, less specialized to a particular niche, than lower forms. General evolution is the emergence of higher forms of life, "regardless of particular lines of descent or historical sequences of adaptive modification" (ibid., 16). This taxonomic shift from phylogenesis to developmental perspectives implies another shift from species or populations to particular organisms because "in general evolution organisms are taken out of their respective lineages and groups into types which represent the successive levels of all-round progress that evolution has brought forth" (ibid., 19). For Sahlins, therefore, accepting general evolution as against specialized adaptation is abandoning relativism. Cultural evolution manifests considerable variations, which, in contrast to biological evolution, are transmissible. They may converge or may be diffused, and thus contribute to general evolution, whereas adaptive specializations may be either beneficial, opening new vistas for the future, or blocking all progress thereby leading to a dead end.

3. The Dual Inheritance Model of Boyd and Richerson

The point of departure of Robert Boyd and Peter Richerson in the elaboration of their dual inheritance model of human existence is the empirical fact that the individual's learning experience and the consecutive phenotypic flexibility are lost with death, though culture generates population-level consequences in that culturally acquired variations (social or nongenetic learning) are transmitted from generation to generation and engender changes in populations:[3]

> Since cultural variants are inherited and many, if not all, culturally acquired behaviors have an effect on human survival and reproduction (both genetic and cultural), some cultural variants will increase relative to others (Boyd, and Richerson 1985, 11).

Boyd and Richerson do not pretend to displace the individual as the primary locus of evolutionary events since social learning and communication transmit phenotypic traits directly from individual to individual. They insist, however, that frequencies of culturally transmitted phenotypes in a given population are as important as the frequencies of different genotypes. In their perspective, biological and cultural evolutions are linked in a dualistic way: (i) because of the equal importance of genetic and cultural inheritance given the fact that "culture is acquired through direct copying of the phenotype" (ibid., 8); (ii) because natural selection is at work in both domains, and (iii) because when natural selection operates biological and cultural factors mutually interact. Cultural inheritance is certainly adaptive in terms of the theory because it represents a shortcut. Populations with developed cultures can adapt easier and with less effort to local environmental circumstances than those who do not possess any culture.

Thus, Boyd and Richerson base the study of the interaction of biological and cultural evolution on the triad of genes, culture, and environment. They understand culture as "the transmission from one generation to the next, via teaching and imitation, of knowledge, values, and other factors that influence behavior" (ibid., 2). Culture is transmission of encoded information capable of influencing the formation of individuals' phenotypes;[4] the totality of cultural traits inherited by an individual is the latter's *cultural repertoire*, and specific traits included in this repertoire are *cultural variants*. Symbolization and symbolic capacities are less emphasized because for Boyd and Richerson social learning is the main vehicle of cultural transmission. The structure of transmission is constituted by various patterns of socialization by which a given cultural trait is transmitted in a given society to the next generation when the rules of behavior are internalized by the younger members. The distribution of phenotypes is, in fact, endogenous to the evolution of populations. The stability of culturally inherited cognitive and emotional patterns and behaviors is empirically proven, and the contrast between Melanesian and Polynesian populations in the Western Pacific region is evoked as an example. As a consequence of this construction, different patterns of inheritance entail considerable differences in the course of the evolutionary process through culturally determined components of the human phenotype.[5] Boyd and Richerson expect that as a result of the interaction of enculturation structures, of

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[3] "Phenotypic characters acquired via social learning can be thought of as a pool of cultural traits that coevolves with the gene pool in a way that characters acquired through ordinary learning without culture do not. Social learning causes the acquisition of phenotypes to be a population-level phenomenon." Boyd, and Richerson 1985, 7. They explain further: "The social aspect of social learning can create novel evolutionary processes in cultural organisms through the existence of socially transmitted traditions that are not directly attributable to genetic factors and immediate environmental contingencies. To understand the evolutionary process of an organism with cultural transmission one must understand the forces that affect the frequency of different culturally transmitted variants in a population." ibid., 34.

[4] Boyd and Richerson emphasize the information character of culture, and with reference to Clifford Geertz (1973, 44 and 143-146), they exclude "behavior from the definition of culture because behavior is contingent upon both patterns of thought and feeling and environmental circumstances. Two individuals with identical sets of culturally acquired dispositions may behave quite differently in different environments. Thus by our definitions, the relationship between culture and behavior is similar to the relationship between genotype and phenotype in noncultural organisms." ibid., 36.

[5] "The time scale of cultural evolution may be either shorter or longer than a biological generation. Individuals do not necessarily acquire all cultural characters from their parents or from members of the parental generation and do not in turn pass on cultural items only to children. Rather, the behavior of any individual can be copied – adults may copy adults

socially motivated skills and actions, and of past, present, or future environments, they will be able not only to explain but eventually also predict people's behavior.

Cultural transmission evolves in an analogous way with the evolution of a genetic system. Any change affects simultaneously all the traits transmitted, but transmission can nonetheless be biased. It is a direct bias when people influence the transmission process following their own judgements in the matter. Indirect biases such as adopting attractive variants can reinforce specific cultural traits, though the *frequency dependent bias*, which in reality is nothing else but a conformist bend in cultural transmission,[6] reflects people's tendency to adopt traits, which are more common in their cultural environment. These therefore increase the most common cultural traits in a given population. In copying the phenotype, accidental variation or random mutation probably plays a greater role than in genetic evolution. Boyd and Richerson even find an analog to the genetic drift in case of small populations in which chance variation appears to be frequent. The most important element in the dual inheritance theory is, however, the *guided variation principle* according to which elaborate methods of adaptive modification of behavior, through the medium of trial-and-error process of learning and rational calculation and guided by external criteria reflecting environmental changes, leads to directional or adaptive modifications in the phenotype and may be transmitted to successive generations. Guided variation, then, plays, at least partially, the role of natural selection in the cultural domain as it promotes transmission of knowledge and behavior patterns resulting from social learning and information transmission in populations in order to enhance the realization of learning criteria. The force of selection, as guided variation, depends on the amount on variation in the given population – just like in the case of genetic variations. In contrast, "because learning creates new variants the effect of the force of variation on the mean phenotype in the population is independent of the amount of variation in the population" (ibid., 174). The role of bias in cultural transmission is based on individual decisions, for example close imitation of models, which means that biased transmission follows not endogenous criteria like guided variation, but external features defined by a given situation.

Inheritance systems may be symmetric when they have life cycles of similar length – as, for example, in case of cultural transmission by both genetic parents – or asymmetric, in childhood between genetic and cultural types, in adulthood because of differing learning or experience patterns. Boyd and Richerson believe that if two inheritance systems are symmetric the chance is great that natural selection will favor the same phenotypic variants. If they are asymmetric, selection forces may favor different phenotypes corresponding to the different inheritance systems. Natural selection of culturally transmitted elements tends to increase variants that enhance cultural fitness and, as mentioned before, asymmetric transmission may produce different variants from those features that maximize genetic fitness. A conclusion that asymmetric cultural transmission could be frequently maladaptive is, however, not justified, as empirical evidence indicates that asymmetric cultural transmission in the human world is survival enhancing. Boyd and Richerson cite as an example of selection by asymmetric cultural transmission the spread of industrial transformation of society in the Western civilization and in the modernizing countries of Asia, Africa, and Latin America. Without trying to analyze this complex problem in its entirety, they cite comparative testing of selected, presumably measurable qualities such as cognitive style (in reality, this is reduced to something called field dependence of psychological experimenting), and adopt conclusions in respect of the role played by different ecological and social situations in the formation of different cognitive styles.

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and children may imitate other children. Sometimes older individuals may even imitate younger ones. Following Cavalli-Sforza and Feldman we call such transmission within generations 'horizontal'." ibid., 8.

[6] This conformist frequency-dependent bias has two effects one of which appears to promote group selection: "First, in a spatially varying environment, it can provide a simple general rule that improves the chance of acquiring the locally favored cultural variant, and second, it increases the amount of cultural variation among groups relative to the amount of cultural variation within groups. This in turn can cause selection between groups to favor cultural variants which enhance the success of the group at the expense of the individual." ibid., 206.

4. Chomsky's Innate Language Structures

In Noam Chomsky's rationalist theory of language, language mirrors the mind not only in the sense that language reflects the everyday world and normal patterns of thought and customs, but also that it reveals abstract and universal principles governing mental activities of our species. In his theory, the mind's operations – all cognitive capacities including language learning – are determined biologically. Mind structures are accidental products of specific historical developments. "We interpret experience as we do because of our special mental design" which corresponds to the nature of things (Chomsky 1975, 7-8). In fact, humans are innately endowed with a mental-intellectual organization, the "initial state of the mind" (ibid., 137-138), which develops through maturation processes and interaction with the environment before reaching a final, steady state which includes not only so-called generalized learning strategies (schematisms), but also the creative aspect of language use (Chomsky 1972, 6).

It is in this evolutionary context that Chomsky places his conceptualization of linguistic universals. Following all great evolutionary biologists of this century, he affirms that language learning capabilities are a species characteristic, but do not specifically determine which language a human being will learn. He writes that

> One of the faculties of the mind, common to the species, is a faculty of language that serves the two basic functions of rationality theory: it provides a sensory system for the preliminary analysis of linguistic data, and a schematism that determines, quite narrowly, a certain class of grammars. Each grammar[7] is a theory of a particular language, specifying formal and semantic properties in an infinite array of sentences. These sentences, each with its particular structure, constitute the language generated by the grammar. The languages so generated are those that can be 'learned' in the normal way. The language faculty, given appropriate stimulation, will construct a grammar; the person knows the language generated by the constructed grammar. This knowledge can then be used to understand what is heard and to produce discourse as an expression of thought within the constraints of the internalized principles, in a manner appropriate to situations as these are conceived by other mental faculties, free of stimulus control (Chomsky 1975, 12-13).

Thus, the possible variety of languages is limited. People living in the same community acquire essentially the same language as they have restrictive inner principles, which direct their construction of a grammar. Chomsky, in his holistic perspective of the mind, links language faculty to human cognitive abilities without forgetting the importance of man's intentional nature (on human intentions see, Chomsky 1971, 14).[8] The mind, a complex integrated system, contains innate competences – language, knowledge, common-sense understanding, or belief – which are abstract in comparison to capacities of acting, but do not represent any mysterious features in man's biologically conditioned nature. Nevertheless, if there is any correspondence between human cognitive performances and scientifically established truths, that must be a lucky coincidence and not the work of natural selection.

Underlying the specific grammars on which are based specific languages, is a universal grammar, a component of the initial state of the mind. This universal grammar, biologically determined, is a generative grammar, which contains all invariant principles, conditions, rules, elements, or other properties (sound, meaning, symbol uses, etc.) that are used by specific grammars. As universal grammar determines the structure of particular languages, which differ in accidental properties only, it is consequential to suppose, as Chomsky does, that all these particular languages are *structure-dependent*, though – and this is extremely

[7] His definition of grammar is as follows: "The grammar is a system of rules and principles that determine the formal and semantic properties of sentences. The grammar is put to use, interactive with other mechanisms of mind, in speaking and understanding language." Chomsky 1975, 28. The grammar, assigns "to each of an inifinite set of expressions a semantic, phonetic, and syntactic representation" each having an underlying universal foundation. ibid., 142.

[8] "But the normal use of language is not only innovative and potentially infinite in scope, but also free from the control of detectable stimuli, either external or internal. It is because of this freedom from stimulus control that language can serve as an instrument of thought and self-expression, as it does not only for the exceptionally gifted and talented, but also, in fact, for every normal human." Chomsky 1972, 12.

important – they are not meaning-dependent. The meaning attributed to words and sentences is determined by the entire cultural context through the integrative functions of the complex, cognitive capacities of the mind.

Finally, the crucial question in respect of the innate, universal grammar enabling human beings to learn and use languages is not whether it exists, but whether its description is a rational construct or an empirical reality.[9] Chomsky takes an unambiguous stance: "Without attempting, for the present, to relate the postulated mental structures and processes to any physiological mechanisms or to interpret mental function in terms of 'physical causes'" (Chomsky 1972, 14), he affirms the primacy of the rational. As in the so-called Port-Royal theory of philosophical grammar, the deep structure – present to the mind – and the surface structure – the bodily produced signal – are related by mental operations which enable human beings, in Wilhelm von Humboldt words quoted by Chomsky, to make infinite use of finite means.

5. Durham's Constrained Microevolution

William Durham wrote extensively on the coevolution of biology and culture as, in his opinion, coevolution only can explain the enormous diversity of the human world. Coevolution means in his understanding "two distinct but interacting systems of information inheritance within human populations" (Durham 1991, 419-420). Human phenotypes are products both of genetic influences through the mechanism of natural selection, and of cultural inheritance and influences, which interact with the genome, but a certain degree of variability exists in genetic as well as cultural instructions. His central hypothesis is that genetic and cultural factors vary as a function of the phenotype they contribute to create. Cultural evolution is based, like genetic evolution, on differentials of transmission leading to change in frequencies and to evolutionary shifts in phenotypes.[10] He combines this aspect with a microevolutionary approach, recognizing varying combinations and gradations of distinct phenomena, though taking into account the constraints imposed by macroevolutionary processes.[11] Consequently, he limited his research to coevolutionary events within human populations.

Durham defines microevolution as the "evolution of phenotypic traits (morphology, physiology, and behavior) within a single population" (Durham 1982, 291). These traits follow genetic instructions interacting with environmental forces, including diverging instructions given by alleles, which may contribute to the development of differences between phenotypes of an organism. Genetic transmission depends, of course, on the net effect on the organism's phenotype, hence the importance of phenotypic configuration in Durham's description of microevolution. In a given population genes may increase or decrease in frequency as a result of the reproductive success of their carriers, and the subject of microevolution is to interpret evolutionary trends in phenotypes due to changing patterns in gene frequencies.

Human diversity is the product of two sets of instructions, one genetic and one cultural. The microevolutionary approach[12] examines individual-level processes of differential transmission, whereas the

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[9] Chomsky quotes Konrad Lorenz who stated "Adaptation of the a priori to the real world no more originated from 'experience' than the adaptation of the fin of the fish to the properties of water... In the case of animals, we find limitations specific to the forms of experience possible for them. We believe we can demonstrate the closest functional and probably genetic relationships between these animal a priori's and our human a priori." Lorenz, Konrad. 1941. "Kants Lehre vom apriorischen in Lichte gegenwartiger Biologie." *Blätter für Deutsche Philosophie*, 15: 94-125. ibid., 95.

[10] "Phenotypes – and behavior *a fortiori* – are ways of adopting different strategies in different environments using the same set of genes; and phenotypes are products of natural selection. Complex alternative phenotypic strategies correlated with genetic uniformity are not evidence against the efficacy of selection, but instead are evidence of a history of powerful selection involving unpredictability in environmental shifts or oscillations." Flinn, and Alexander 1982, 390.

[11] Beside the genetic constraints – "phyletic heritage, pathways of development, and general architecture" – the cultural constraints are historical past, socialization practices, technology, and social structure. Durham 1982, 297.

[12] The microevolutionary approach (i) requires that populations should not be uniform and homogeneous, or isolated and independent of each other; (ii) recognizes the hierarchical order without restraining individuals to a passive role as individuals or groups of individuals are considered to be the organizing force in society and to originate social changes;

macroevolutionary method focuses on large-scale adjustments, a sort of cultural speciation, which involve regulatory and control constraints in respect of the internal cohesion of culture and genome. Macroevolution, on the one hand, insists on higher-level actions affecting the structure and organization of society, which also influence and constrain lower-level events; on the other hand, microevolution emphasizes the role of the individual, carrier of a given culture, and the transmission of culture from individual to individual. It should not be forgotten that between higher and lower levels continuous interaction takes place, and certain individuals' influence may have consequences at higher levels; cultural transmission or socialization is certainly not only an individual-to-individual transaction. "The idea is that macroevolution acts as an important force limiting the nature and range of variability upon which microevolutionary mechanisms operate" (ibid., 294).

In cultural evolution the persistence of differential cultural instructions, – changing in form, frequency, and relevance, – nevertheless are cumulative and exert their influence in the historical perspective. Phenotypic changes respond to differential and nongenetic transmission of changing cultural instructions. As a consequence, human phenotypes may change independently of changes in the genotype. Genetic changes are intrinsically linked to procreation, but differential cultural transmission is a result, in Durham's description, of the varying content of cultural inheritance. Cultural inheritance and human phenotype, then, mutually influence each other. The content of cultural inheritance influences the nature of the phenotype, which, in turn, facilitates or obstructs the transmissibility of cultural inheritance. In this respect, however, Flinn and Alexander, who criticized some of Durham's statements and who think that natural selection molds both genetic and cultural influences on human diversity, raise the question of the extent to which the cumulative effects of the operations of natural selection on phenotypic configuration "influence rates and directions of cultural change, and how this influence is exerted" (Flinn, and Alexander 1982, 389).

Durham constructed five models to test his ideas: cultural mediation; genetic mediation; enhancement; neutrality, and opposition. The two models of mediation simply confirm that cultural factors or genetic properties may, in certain circumstances, direct biological or cultural evolution. Enhancement, however, occurs when cultural evolution reinforces genetic fitness, even if through better cultural conditions and capabilities. If it does not have an impact on the genome's effects on the phenotype than the end-result is characterized by neutrality, but when cultural evolutionary influence contradicts requirements of genetic fitness, then opposition occurs. Durham concludes that neutrality and opposition are infrequent and less consequential than the other three situations. In fact, neutrality seems to occur less than it appears because adaptation, in most cases, refers to culturally defined requirements of survival and reproduction. In respect of the brain's development, Durham follows the traditional argument that the increase in brain size – through phyletic gradualism or punctuated equilibrium – was favored by natural selection because it produced definite evolutionary benefits in the form of human cultural activities. He considers that the benefits obtained through increased selective value were produced in a positive feedback fashion, or enhancement. The role played by enhancement as positive feedback is by means of ever-improved cultural possibilities leading to the facilitation of the transmissibility of other cultural variants:

> Slowly but surely, the record suggests, the evolution of culture evolved so as to be increasingly controlled by culture itself via enhancement. Cultural transmission became increasingly self-selecting through a transmissible set of values, ideas, and beliefs reflecting the trials and errors of hominid experience (Durham 1982, 315).

Durham also lists four implications of the process he put forward: (i) that sociobiological influences gradually became weaker in their effects on the phenotypes; (ii) that between genetic fitness and cultural evolution there was an increasing correlation; (iii) that the process of natural selection favoring neural structures and cranial capacity would go on until it is possible to improve the cultural transmission system; and (iv) that enhancement played the major role in promoting the correlated biological and cultural evolutions, all the more that human cultural capabilities are based on genotypic modifications.

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and (iii) requires to take into consideration all forces influencing the cultural transmission process between individuals. ibid., 294-295.

PART TWO

MAN: BEING AND TRANSCENDENCE

CHAPTER FOUR

BEING-IN-THE-WORLD AS EXISTENCE

The fundamental feature of human existence consists in that man is a being, or a part of the universal being, in a cosmic but not mystic sense. Evolutionary biology traces man's becoming and being as part of the cosmos as far as his material existence is concerned. However, evolutionary biology as well as the other natural sciences is unable to go beyond man's physical and psychic existence because they are bound by the ideological credo that man's whole existence must be explained in physical and biological terms. We have seen that some of the greatest minds are searching for a solution to understand in physicalist terms the fact of human awareness, of human consciousness, or of human will. Therefore, looking for an explanation especially in the shadowy zone where quantum phenomena and our perceptual world meet. The search has been, until now, unsuccessful, yielding only some promissory notes based on the explanatory power of scientific and logical hypotheses believed to be unlimited. Also, social scientists either simply adopt current views of evolutionary biology, or affirm the dualism of the parallel but interactive evolutions of body and culture, or endeavor to apply biological concepts, categories and processes to evolving cultural activities in order to explain the latter in evolutionary terms.

Before considering the ontological and transcendental aspects of human existence, I postulate – in view of the lack of success of scientific efforts – the *principle of evolutionary saltation*.[1] Evolutionary saltation means the appearance in the cosmos of a new kind of being whose existence is characterized by an all-embracing awareness of his world; a world that the new being grasps intentionally and in a conscious way. This is what I call human transcendence. Thus, transcendental in philosophical anthropology means man's capacity to overcome the limitations of his being and of his world;[2] to grasp beyond what is materially real, the spheres of reality which are as concrete but in a different manner than the world of sensations because unextended though substantial – a reality constituted by ideas, concepts principles, feelings, traditions, symbols, or myths. *The transcendental stands for the human being's capacity to reach out beyond itself, to give meaning to the world, to understand the cosmos as well as to construct his own, ontic world, and thereby adapt himself to the ever-changing circumstances of his environment and secure his survival*.[3] Consequently evolutionary saltation is an unavoidable presupposition of human ontology – being-in-the-

[1] Eldredge and Tattersall already came to the conclusion that there is no gradual change in either biological or cultural development, but sporadic, one-upon-a-time upheavals: "All along we have looked for the expected pattern: slow, steady, progressive change. And all along we have found instead a pattern of sporadic change. We are aware of the irony of this. We have debunked the myth that evolutionary change is gradual and progressive. We have likewise skewered the notion that patterns of cultural change – prehistoric and historic, in simple and complex societies – are gradual and progressive. Both are based on the same preconceptions about inherent change. And it is ironic that the patterns in biological and cultural change that we do see end up still being similar." Eldredge, and Tattersall 1982, 175.

[2] Paul Ricoeur expressed this aspect of transcendence when he wrote: "To be a man is to be capable of this projection into another center of perspective." Ricoeur 1965, 282.

[3] "Underneath the tnire problem of the 'relation' of 'subject' to 'object' is the undiscussesd problem of *transcendence*... The problem of transcendence as such is not at all identical with the problem of intentionality. As ontic transcendence, the latter is itself only possible on the basis of originary transcendence, on the basis of being-in-the-world. This primal transcendence makes possible every intentional relations to beings... [Originary] transcendence precedes every possible mode of activity in general, prior to *noesis* (belief), but also prior to *orexis* (desire)." Heidegger 1984, 135 and 183; italics in original.

world – and of human existence – transcendence of this world made possible by the unique capabilities of man.

The concept of man as being in the cosmos and transcending the cosmos, also presupposes that we are capable to visualize human ontology dialectically[4] and intuitively, that is, surpassing the limited intellectual space of logical thinking. To recognize that man is simultaneously being in the world and transcending the same world. This represents the basic dialectics of human existence without being identical with the age-old subject-object distinction. We shall meet in the following text several other dialectical aspects of man's world like the one between individual and community, or between the spatiality and temporality of our earthly life.

1. The Cosmos and the World: Multiple Realities

My point of departure is not the everyday Being (factical in Heidegger's language) – *Dasein* – that lives in the world, but the world itself of which *Dasein* is a part. World or worldhood means, then, the cosmos – as against the universe which, in our days, signifies principally the physical universe – whereas cosmos includes the non-material aspects of man's existence, his social and cultural life as well (like the Greek *polis/cosmos*). It is the world in which man lives. The cosmos is an ontological concept. It is distinguished from the ontic world which, in my conceptualization, denotes the spatially and temporally defined world of human beings and communities (this corresponds more or less to Heidegger's *ontic-existentiell* concept of the world) which, as the here and now, is contextual. The cosmos is a holistic concept what we otherwise call nature, in which entities as well as relations have equal importance. "World is that which is already previously unveiled and from which we return to the beings with which we have to do and among which we dwell" (Heidegger 1962, 165). This world represents the foundation of the inevitable involvement of man in everything that concerns nature.[5] This is the justification of our contemporary ecological awareness and our interest in all environmental aspects of our situation. In the cosmic perspective, the plurality of inanimate entities and living organisms, though evidently keeping their particular identities and features of existence, are, "systematically integrated and mutually defining" (Callicott 1989, 61). This conceptualization of the cosmos corresponds to the one prevalent in the Chinese civilization. The Chinese cosmogony explains that the cosmos consists of "organismic processes meaning that all of the parts of the entire cosmos belong to one organic whole and that they all interact as participants in one simultaneously self-generating life process" (Mote 1971, 19).[6] In fact, in early China there was a belief in the unity of the many, and Confucius accepted the idea that this unity stemmed from a common source, the Heaven, from which all humans originated.

All entities belong simultaneously to the cosmos and to the ontic world, but it is only man – *Dasein* – who grasps the difference and understands this multiple reality. I do not mean by the distinction of ontological cosmos and ontic world neither to follow in Kant's footsteps by evoking the world of the *Ding an sich*, nor to adopt the phenomenologist standpoint and consider both the cosmos and the world as the particular constructs of each human being. Either the mental nor the physical has any foundational significance, both are part of a whole that is disclosed in existence, or the Wittgensteinian forms of life.[7] *Dasein* as such, as an

[4] As Paul Tillich said: "Man experiences himself as having a world to which he belongs. The basic ontological structure is derived from an analysis of this complex dialectical relationship." Tillich 1951, 169.

[5] Heidegger envisages dialectically the relationship of the world and of *Dasein* as Being-in-the-world, therefore he explains that "entities *within-the-world* are ontologically conceivable only if the phenomenon of within-the-world-ness has been clarified. But within-the-world-ness is based upon the phenomenon of the *world*, which, for its part, as an essential item in the structure of Being-in-the-world, belongs to the basic constitution of Dasein. Being-in-the-world, in turn, is bound up ontologically in the structural totality of Dasein's Being." Heidegger 1962, 252; italics in original.

[6] Chinese cosmologies were not mechanistic, teleological, or theistic: "Institutionalizing tendencies present in most religions as observed in most societies, were not very important among the Chinese for still another reason: their cosmic processes lacked a mechanistic concept. [This was] a cosmic dynamism... fully explicable in terms merely of its internal harmony and the balance among the parts of a conceptually known but also naturalistically observed world organism." Mote 1971, 24.

[7] Concerning existence, see Heidegger 1962, 153; concerning the "forms of life," Wittgenstein 1989, #241.

entity, is *a priori* (Heidegger 1985, 324-325). The ontic world is not a reflection of the cosmos, it is different from it. But both worlds are real for me and for you.[8] For us the ontological and ontic reality is simultaneously identical and different because *Dasein*'s existence is dialectical.[9] The ontic world is real for other animate beings only in an unconscious way because they are unable to transcend it like man, and the ontic world does not exist at all for the inanimate parts of cosmos as they do not possess awareness and consciousness. They are not vested with the characteristics of *Dasein*.

This basic dialectics of human existence can be explicated only if we understand the concept of being-in-the-world as a complete symbiosis of *Dasein*, which fuses the cosmos and the ontic world, on the one hand, but a symbiosis that comprehends man's ability to transcend this symbiotic relationship, on the other hand. Being and transcendence cannot be mutually exclusive as much as life and death cannot be mutually exclusive, because one presupposes the other. If man would not be living in symbiosis with his world, then it would be impossible for him to transcend this world. The cosmic worldhood offers the ontological possibility for humans to discover the ontic world surrounding them and to discover themselves as well. It is in this sense that Heidegger speaks sometimes of ontic transcendence.

To illustrate what I mean by the simultaneous presence of the two worlds in a human being's life, and his transcendence of this symbiosis, I refer to the way of seeing and painting of the famous French impressionist, Claude Monet. Charles Stuckey, the Chicago Art Institute's curator of twentieth-century painting and sculpture, commented on Monet's well-known paintings of the cliffs of Etretat, as follows:

> He carried five or six canvases to any given site in order to switch from one work-in-progress to another as the 'envelop' of colored air surrounding the coast-scapes changed. The dramatically striated and eroded forms of the cliffs provided a framework of geological time measured in centuries for Monet's minute-to-minute observations of changing light conditions.[10]

The envelope was Monet's own term to describe the cosmos, meaning the colorful light but not the traditionally conceived object. Monet's vision, therefore, encompassed space and "the full spectrum of time, observed as a succession of instantaneous truths of quickly moving light and water."[11] I do not agree with Stuckey who thinks that Monet's primary subject was empty space because an impression is an impression of something real not of an emptiness what one fills by one's own constructions.

Being-in-the-world means, therefore, being in multiple worlds – with Alfred Schutz' expression (Schutz 1971b) – not specifically in the sense of the ontological cosmos and ontological cosmos and ontic world, but in the sense of multiple ontic worlds. As the world changed for Monet with even the slightest modification of light and shadow, colors and hues, it changes for everyone in accordance with a particular context in which the person lives. It is through his awareness, consciousness, and intentionality that man delineates, in a reflective or spontaneous attitude, his world of the present; that is, the simultaneously or sequentially experienced multiple worlds in which he lives. But the plurality of multiple worlds presupposes, in the Heideggerian sense, the existence of one shared world, or the cosmos. In contradistinction to the Husserlian and later existentialist and individualist worldviews, the perspective evoked in this study indicates this one

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[8] "Dasein in so far as it is, has always submitted itself already to a 'world' which it encounters, and this submission belongs essentially to its being." Heidegger 1962, 120-121.

[9] The Heideggerian differentiation of Being and *Dasein* is as follows: "(1) Beings are in themselves the kinds of entities they are, and in the way they are, even if... Dasein does not exist. (2) Being 'is' not, but there is being, insofar as Dasein exists." Heidegger 1984, 153. And further: "The cosmos can be without human beings inhabiting the earth, and the cosmos was long before human beings ever existed." ibid., 169. Finally: "The fact that reality is ontologically grounded in the Being of Dasein, does not signify that only when Dasein exists, can the real be as that which in itself is." ibid., 255.

[10] *Claude Monet 1840-1926*. An exhibition at the Art Institute of Chicago, July 22 to November 26, 1995. Catalog of the exhibition by Charles F. Stuckey, with the assistance of Sophia Shaw. Chicago, Art Institute of Chicago/Thames and Hudson, 1995: 28;.quoted by Herbert Robert L. "Impressionists on Stage." *The New York Review of Books*, 2 November 1995, 44.

[11] ibid., 45.

shared, real world as founding all perceptions, and all views of the world.[12] This reality encompasses the intersubjectivity of a cultural community and the personal vision of each individual because it constitutes the background familiarity with the world, a preontological understanding of being emphasized by Heidegger (1962, 150 and 1985, 246), and because it constitutes the background network of knowledge about the world as elaborated by John Searle (Searle 1983, 65-66, and 143-159).

If being-in-the world means to exist in a world of multiple realities, it is important to clarify, especially with reference to Heidegger, the meaning of reality. If for the philosopher of Freiburg, real was a disclosure of a being-in-itself as being-in-the-world grasped by the *par excellence* being-in-the-world, *Dasein*; that is, the occurring becomes real through its perception by *Dasein*. Being-in-the-world excludes the possibility of being in-itself.[13] In the ontological unity of cosmos there cannot be beings which stay apart, which are not part of this cosmos, especially not if one supposes, as I do in the present study, that cosmos and *Dasein* live in a symbiotically, as inseparable entities. Nor can it be imagined that *Dasein* is a being in-itself in respect to the contextual world in which it lives, because existing means existing in a given world, existing in a number of multiple worlds simultaneously and separately. Heidegger said: "Understanding of Being is itself a definite characteristic of Dasein's Being" (Heidegger 1962, 32). Because consciousness is transcendence but a transcendence of a being-in-the-world, to be a being-in-the-world encompasses man's biological existence and his transcendence and, consequently, his cultural existence as well.

2. Man and His World

Man is the Heideggerian *Dasein*. *Dasein* is different from other entities in the cosmos because it is a being which is capable of transcending itself and its world. Modifying Heidegger's characterization of *Dasein* ("Dasein is ontically distinctive in that it is ontological;" Heidegger 1962, 32), I consider that *Dasein being wholly part of the ontological and ontic worlds, it has the unique quality of transcending both, and giving sense to both*. Being human as a universal category is a consequence of man's being part of the cosmos, and not of any kind of excellence he would possess in comparison to other creatures. However, being human signifies that all men are equal in their quality as members of the cosmos, as possessing the same quality of being, – their innate human dignity. Enabled by his transcendence man not only understands himself, but also creates his own ontic world through perception, spatial presence, temporal perspective, community with other similar beings and the whole cosmos. The most overwhelming forms of his transcendence are morality, death-awareness, and his outreaching from the cosmos through religious belief, myth or art. The life of such a being is existence, an innate knowing of how-to-cope. It is a peculiar kind of existence because of man's capacity for transcendence. It is not only self-referentiality, but also the ability to understand the world, and to express what the world is and how it is. Transcendence, therefore, comprehends awareness, understanding and self-referentiality, and all these features are embedded in the human existence. It is in this sense that man's existence is a potentiality-for-being, a potentiality of authenticity.

Though man is what he is through his capacity of transcending the world that does not mean that man is not necessarily embodied. Man as being-in-the-world cannot be envisioned without the physical presence of the human being in this world. His body, his awareness, his consciousness, and his transcendence form one whole in man as *Dasein*; the body is the spatial location of a human being as much as of an animal or of an inanimate entity. To be in the world is, for me, not to reside, to dwell in this world, as Heidegger would have

[12] This immediacy to reality is, however, entirely different from any kind of objectification or reification which presuppose the subject/object juxtaposition.

[13] It is interesting that Heidegger sometimes explains his point of view in a way which makes being-in-the-world and the real identical with each other similarly to the standpoint explicited in my text: "Nothing exists in our relationship to the world which provides a basis for the phenomenon of belief in the world. I have not yet been able to find this phenomenon of belief. Rather, the peculiar thing is just that the world is 'there' *before* all belief... Inherent in the being of the world is that its existence needs no guarantee in regard to a subject. What is needed, if this question comes up at all, is that Dasein should experience itself in its most elementary being make-up as being-in-the-world. This eliminates the ground for any question of the reality of the world." Heidegger 1985, 215-216; italics in original.

it, but literally to be in the world, to be in the space determining both our cosmos and our ontic world. If man would not have a body, there would be no man, no *Dasein*.[14] Man's biological existence is an indispensable condition of his being-in-the-world.

If man is an integral part of the cosmos and of the human world, in a dialectical relationship we called symbiosis, then, there cannot be a divide between man, – a subject, – and the other entities of the world, – the objects. Man's character as being-in-the-world excludes the dualism or, rather, the juxtaposition of subject and object. The well known detached, observer standpoint of scientific theories makes no sense if everyone is rooted in the same world. The subject-object division of the world is a pure illusion. Unfortunately, even the concept of the self reflects this division because the self implies that one is separated from everything else, one stands opposite to everything else, and one looks upon things as a complete stranger in order to decide how to act upon them, if at all. But if each being has an environment to which he belongs, then the self cannot autonomously determine its own environment, its world. The self and its ontic world mutually determine each other.[15]

Man does not stand against the world as an object of his cognition against a reified universe, the result of human epistemological and cognitive efforts. Man is aware of the cosmos, conscious of the ongoing events and activities in his world, because he is endowed with the ability of transcendence by his biological makeup and by his bringing up in a spatially and temporally determinate culture and society. He is aware and conscious from the inside, as it were, of what there is and of what happens around him. Even such typical examples of reification in the older philosophical thinking, such as structures, institutions, or traditions, cannot be considered to be reified, or objectified manifestations of past or present human efforts. They are living phenomena, modified with the successive re-shaping of the multiple ontic worlds in which men always live, in accordance with the slowly evolving cultural and social configurations of human existence. One can agree with Sartre, but only on this point, when he writes in his *Existentialism as Humanism* that man's environment represents his basic situation, in fact the 'universality of human *condition* meaning "all the *limitations* that *a priori* define man's fundamental situation in the universe."[16]

In Chinese culture, the Confucian image of man, for example, "stood in certain definite relationships to other things, and that there were natural rules dictating the actions of those things" (Munro 1969, 11). The Confucians also believed in human life as existence and transcendence because they defined human nature as manifesting three aspects: first, life-sustaining activities shared with the animal world; second, social activities unique to man, and, third, the evaluating mind which assesses and judges social and moral issues (ibid., 12).

An important perspective in the Confucian picture of man as being-in-the-world was their belief in the natural equality of all men, by which they understood that all men are born with common attributes or characteristics – what we understand, in our culture, by the concept of human dignity.[17] "By nature, men are nearly alike," said Confucius in the *Analects*, "by practice they become very different" (xvii, 2, and xv, 38). For the Taoists, equality meant simply that all humans should model themselves according to what the Tao requires from them. From the point of view of the Tao everybody was the same as everybody shared in *te*, the essence of an entity determined by Tao.[18] Tao is the permanence amid change. It directs through *te* the

[14] It is noteworthy that in all great religions of the world, there is a form of incarnation of God which is envisioned. Certainly not in the direct form of incarnation as in Christianity, but, for example, in Vedic Hinduism where Brahman is simultaneously the transcendent God and the essence of man.

[15] Schutz wrote: "The natural attitude does not know these problems [of multiple worlds]... To it the world is from the outset not the private world of the individual but an intersubjective world, common to all of us, in which we have not a theoretical but an eminently practical interest... We work and operate not only within but upon the world... it may be correctly said that a pragmatic motive governs our natural attitude toward the world of daily life. World, in this sense, is something that we have to modify by our actions or that modifies our actions." Schutz 1971b, 208-209.

[16] This study, written in 1946, is included in the volume edited by Walter Kaufmann, *Existentialism from Dostoevsky to Sartre*. Clevaland: Meridian Books, 1956, 288 and 303; italics in original.

[17] However, the Confucian and Taoist views of man did not relate their belief in the natural equality (or dignity) of man to those tenets of the egalitarian doctrine which are now dominant in the West such as similar worth of all men or that all human beings deserve the same treatment. Munro 1969, 1-2.

[18] "Taoism asserts that a Unity, Tao, underlies and is present in the many particular things in the world. Being a Unity, Tao cannot be more or less present in one thing than in any other. When individual objects come into being, Tao is found

change in each entity. The Confucian view was more linked to the ontic context in human life because the environment surrounding men caused their differences in moral excellence; whereas Taoism does not know moral preeminence – human knowledge is limited and human judgements incomplete – but intends to enhance understanding of the human condition. Tao's requirement, therefore, was more universal in its character than the Confucian ethic. Nevertheless, the Taoist teaching made it very clear that man does not occupy a central place in the universe.[19]

in each one as its *te*, the principle that determines what a thing is like and what changes it will undergo. Taoists concede that some men can be objectively differentiated from others; but they consider the difference ephemeral and hence negligible. Only the 'Tao within' is eternal, and hence it is the only esential aspect of man's endowment." ibid., 17. The Taoist doctrine influenced also the Chinese Buddhist formulation of the principle of equality, that all men equally possessed the Buddha nature. ibid., 131.

[19] The reverse of the Western worldview, the domination of man by nature is well exemplified by Chinese art as Cook demonstrates it. His text is so convincing that I quote it here in its entirety: "We see mainly landscapes, done in black ink on silk or paper, for just as portraiture or human events are the dominant Western concern, the landscape is dominant in Oriental art. Yet humans are there in the landscapes, along with their homes, occupations, and diversions. But if one were to walk quickly past the scrolls, these figures would be almost, or completely overlooked, for they do not stand in the paintings. In fact, no one part of the scene dominates the others. The scene is one of mountains, trees, a stream or lake, perhaps a small hut barely visible in the trees, and a small human figure or two. The mountains recede into the hazy distance, suggesting great spaces, and while the scene is tranquil and serene, there is nevertheless the strong suggestion of a living vitality, of a breathing life. The viewer is struck by a sense of continuity among the various elements of the scene, in which all are united in an organic whole. The humans in the picture, which are almost always there, have their rightful place in the scene, but only their rightful place as one part of the whole. Nature here is not a background for man; man and nature are blended together harmoniously." Cook 1989, 218.

CHAPTER FIVE

BEING-IN-THE-WORLD AS TRANSCENDENCE

1. The Meaning and Consequences of Transcendence

It is most difficult to evoke and explain transcendence as the fundamental quality of human existence without which man would not be the being that he is. It is all the more difficult to speak of transcendence in a world where anything, which is *meta*-physical, is relegated to the domain of the irrelevant, irrational and mystical. Following in the steps of Heidegger who declared in his *Being and Time* that "transcendence is a fundamental determination of the ontological structure of *Dasein*" (Heidegger 1962, 162), we can examine in detail the essence of transcendence, of man as a *being of distance*.[1]

Human transcendence, therefore, as Simmel clearly saw it, is recognition of our limitations, an acknowledgement of our immense non-knowledge. It encompasses space and time, it is self-awareness: "Transcendence," for Simmel, "is immanent in life" and he refers to "the essence of life as the transcendence of itself" (Simmel 1971, 363 and 367). Transcendence, then, implies indeterminism because it is not part of any kind of mechanical processes such as computational or algorithmic sequences. It is not embedded in causal relationships, – it is only reflecting simultaneous effects of multiple causation. Transcendence certainly presupposes imagination and creative force: "Man's creative freedom consists precisely in his ability to devise cultural perspectives and meaning systems in form and content that cannot be wholly and significantly understood in terms of any objective logic of adaptation" (Tambiah 1990, 153). This applies especially to the arts where man transfigures reality by transcending the real instead of only pursuing an epistemic endeavor, to acquire knowledge about the world.

Another consequence of man's transcendence is that the worldviews of human beings cannot but be *pluralistic*. Neither in the cosmos nor in the ontic world is there any strict universalism. There are universal features, universal tenets of thinking, but not fundamental universal commensurability and conformity.[2] This corresponds to the biological fact that no individuals are entirely the same. The wrongly conceived universalism of the Enlightenment, including Kantianism and German idealism, whose representatives imagined that all men are the same and all men are equal in all respects, is responsible for the disappearance of pluralism from the modern worldview. This artificailly constructed universalism was also nourished by scientific and technological developments, by the arithmetization of human cognitive capacities, which imposed the logic of one equals one to the human world, maintaining that there cannot be differences between the units of the same class or species. The juxtaposition of universalism and pluralism that thus resulted from the development of modern philosophical anthropology represents a sheer historical

[1] This expression was used by Heidegger in *Von Wesen des Grundes*. In *Wegmarken*. Frankfurt am Main: Klostermann, 1967, 71.

[2] In Raimundo Panikkar's formulation pluralism is the "awareness of the legitimate coexistence of systems of thought, life, and action, which, on the other hand, are judged incompatible among themselves... Pluralism is of the order of *mythos* and not of *logos*. There is no pluralist system. Pluralism belongs to the order of existence and not of essence. It is not a merely formal concept like plurality, but it is also not a material concept like unity. There is a fundamental difference between pluralism and mere plurality. The most central presupposition of pluralism is the conviction that no system can exhaust the horizon of human experience." In Dean. ed. 1995, 34 and 43; italics in original.

contingency. In the dialectical worldview universalism and pluralism are two sides of the same human lifeworld. Certain fundamental biological and cultural givens are universal, but the construction of ontic worlds by each self follows an undeniably individualistic pattern.

Pluralism implies, as a matter of course, a corresponding degree of *relativism*. Relativism is also derivative of human transcendence, of human diversity, of the pluralism of human worlds. Again, the modern age was born with the universalistic as against the relativistic worldview due to science and the philosophy based on it. If there are immutable, deterministic scientific laws, which govern the universe, there can be no pluralism and no relativism. The scientific standpoint was badly shaken by the discovery of the quantum world, of the indeterminacy principle, and of the impossibility of the neutral observer's point of view. However, the ideological creed of universalism is still lingering, many do not dare to abandon it despite existential proofs which undeniably show that, beside a fundamental core of universal or, rather, general biological and cultural qualities, men are different because their nature and their culture make them different.

Finally, given the inevitable pluralism and relativism of the human world due to transcendence, it is transcendence that – in an all-encompassing dialectical reversal – renders possible the meeting of the plurality of human persons in an intersubjective, dialogical context of the lifeworld. Transcendence means the impossibility of solipsism because it is the bridge between human beings in that it forces the individual self to reach out toward other selves. Transcendence reflects the fundamental need of any individual self to be in harmony with other humans, because it is ontologically and ontically linked to those others. Through transcendence, human individuals and human communities, in whom these individuals are born and rooted, cannot be separated. One presupposes the existence of the other. The individual's existence is conditioned by the community in which he lives, and the community is constituted, created, and also transformed by its individual members. Therefore, we shall examine the relationship between individual and community in a forthcoming chapter.

If we search in the worldviews of other civilizations for their expressions of human transcendence, pluralism, or relativism, we find quite a few similarities with our view, in particular in Jainism, Buddhism and some neo-Confucian tendencies. The doctrine of *syadvada*, in Jainism, most resembles to such a relativistic view as expressed above. This doctrine, according to Radhakrishnan and Moore, asserts that reality is knowable only in multiple forms and, therefore, the use of absolute predicates (small, good, beautiful, etc.) is unjustified (Radhakrishnan, and Moore 1957, 261-262). The Jainist belief in the multifaceted nature of reality is derived from the concept of the *naya*, which means a point of view, a standpoint from which statements and propositions are made about the world.[3]

The "dependent origination"[4] doctrine of the Buddha reflects a completely different kind of relativism as set out in the *Madhyamika-Sastra*. This is the total relativity of human existence characterized by an infinite number of finite characteristics. In consequence, it requires an entirely different approach to transcendence. It posits for man the need to transcend existence itself.

In Neo-Confucianism, as Theodore de Bary made it explicit, self-transcendence figures as a correlate of religious openness. He, consequently, interprets the expression *hsü* as receptivity. Such openness or self-transcendence leads to objectivity as manifested in the Ming era, but which was already present in the "having no mind" ethical principle of Confucianism and in the Ch'eng brothers broad vision of complete receptiveness and responsiveness to "the principles of Heaven-and-earth and all things" (de Bary 1975, 185-186).

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[3] Radhakrishnan wrote in another passage of his commentary on the Jainist doctrine: "A prominent feature of Jaina logic is its doctrine of n*aya* (aspects or standpoints). Knowledge is either of the thing as it is in itself (*pramana*) or of the thing in its relation (*naya*). *Nayas* give us knowledge of a thing from particular standpoints and these relative views are abstractions from which reality is regarded... It gives us a 'somehow', 'perhaps', or a 'maybe' (*syad*). This is the doctrine of *syadvada*." Redhakrishnan, and Moore 1957, 251.

[4] In the sourcebook compiled by Radhakrishnan and Moore, the desciption of the doctrine of dependent origination is as follows: "Thus the Buddha wished to put in a strong light the fact that entities are produced in the sense of being coordinated. He therefore maintains that they neither are produced at random, nor from a unique cause, nor from a variety of causes; he denies that they are identical with their causes, that they are different from them, or that they are both. By this negative method he discloses the true relative character of all the relative entities. This is relative existence or dependent origination, because nothing really new is produced. From the transcendentalist's point of view it is a condition where nothing disappears [nor something new appears]..." ibid., 348.

Transcendence of man as being-in-the-world – in the ontological as well as ontic worlds – can be characterized by four different, paired aspects which I shall examine in detail in the following pages of this chapter. These are: first, perception and presence; second, awareness and consciousness; third, intention and will; and fourth, the frame-concepts which determine the limits and direction of the three preceding, paired aspects: space and time.

2. Perception and Presence

The first is an ability with which we were endowed by nature, the second a relationship with all other entities in the world. These belong to man as being, as *Dasein*, and make possible human transcendence. Perception does not mean becoming aware of an outside world, of an external object, precisely because man is a being-in-the-world. The world is there, whether we perceive it or not, and therefore perception is the process of becoming aware of it. As Merleau-Ponty justly noted it, perception is not a relationship of knowing but a relationship of being. There are different degrees of perception, not all human beings perceive the world in the same manner and to the same degree. People many times bypass entities and events in the cosmos and, especially, in the ontic world, without perceiving them. The varying capacity of perception of different individuals leads, then, to the well-known phenomenon that people frequently do not base their ideas, their pronouncements and their evaluations on their own perceptions, but are ideologically guided, should the guiding ideology be a religious creed, a tradition, or a scientific construct, each impregnating people's minds through the channels of mediatization proper to the age.[5]

Based on human existence as being-in-the-world – part of the cosmos, on the one hand, and modeling his world through his own perceptions, on the other hand – the perspective indicated here is entirely different from the one prevailing since Descartes which was based on the subject/object dichotomy as already Husserl made it clear. Perception, in Heidegger's view who links it entirely to the present, is a disclosure of the world as it emerges, a disclosure of the emergent presence of entities and things.[6] George Herbert Mead emphasizes as well the importance of the emerging world for human perception when he says: "What we seek in the environment is a statement of the world out of which the emergent has arisen, and consequently the conditions under which the emergent must exist, even though this emergence has made a different world through its appearance" (Mead 1980, 42). Perception is our link to the cosmic world, therefore we have nothing else to go by. Perceptions are not scattered occurrences without linkage but they are produced in a coordinated movement.

Merleau-Ponty clearly establishes the body as the seat of perception. The plurality of one's own perceptions is brought together by the consciousness that "one and the same embodied subject can view successively *from* various positions." Perceptions are "a collection of lived-through correspondences" (Merleau-Ponty 1962, 203-204; italics in original). The unity of perception is not consequential to the unity of space because it is ensured by the body, by the communication of the senses with each other. Synthesis is performed by bodily organs which incorporate in the unity of perception all latent knowledge. It is not an intellectual synthesis of the epistemological self but an existential one. However, the unity of the object is not a correlate of the body but conceived by the self – a self as body and consciousness. There is no subject/object dichotomy because there is no difference between external and bodily perceptions.[7] Merleau-

[5] The mediatized imposition of perceptions not properly acquired by each person became, of course, not only one of the main characteristics of the modern age, but the principal obstacle for human beings in endeavoring to transcend their own world.

[6] Heidegger considers perception, as most of the contemporary philosophers, as an act of intentionality (1982: 314-315).

[7] "A certain form of external experience implies and produces a certain form of consciousness of one's own body... There is an immediate equivalence between the orientation of the visual field and the awareness of one's own body as the potentiality of that field... Every external perception is immediately synonymous with a certain perception of my body, just as every perception of my body is made explicit in the language of external perception... remaking contact with the body and the world, we shall also discover ourselves, since, perceiving as we do with our body, the body is a neutral self and, as it were, the subject of perception." Merleau-Ponty 1962, 205-206. Later, he writes, that "the unity of either the subject or the object is not a real unity, but a presumptive unity on the horizon of experience." ibid., 219.

Ponty goes as far as effacing the difference between thinking and perceiving in comparison to the evident difference between seeing and hearing. Perception is autonomous, and it does not depend as such on what we know about the world, though it is part of a perceptual whole coherent with the world. Perception being a function of the body, a rhythm of existence, it cannot be a sensation (belonging to a determinate field) as a state of consciousness. Inversely, it cannot be a sensation as a consciousness of a state, in the manner as positivistic philosophy would have it, representing one single, unlocalized knowledge acquired by the self-grasping it in its impersonal reality. In consequence, perception occurs in the perceptual field of every human being against the background of the world.

Merleau-Ponty sees perception as a complex interlocking relationship of man and the world, a reciprocal interaction of the seer and the visible world[8] precisely because man is a conscious being. It is a consequence of this encounter in which human transcendence of the ontic world is manifested that what is perceived is never determinate, never unequivocally established. Perception also reflects human plurality and relativity of different views of the world.[9] Perception is always part of a whole perceptual context which in reality is a process of integration shaping the ambiguous, shifting image. The perceptual context includes a pre-objective realm that, like Heidegger's preunderstanding of being, makes possible for us to understand the world. Perceptions can only be integrated in a delimited field, when they are invested with a meaning in terms of human existence. It is most important that in the framework of this conceptualization, Merleau-Ponty can link perception to memory and, against Heidegger and the majority of contemporary philosophers, affirms the close relationship between perception and memory. By this connection he establishes perception in a truly temporal perspective:

> The cleavage between given and remembered, arrived at by way of objective causes, is arbitrary. When we come back to phenomena we find, as a basic layer of experience, a whole already pregnant with an irreducible meaning not sensations with gaps between them, into which memories may be supposed to slip, but the features, the layout of a landscape or a word, in spontaneous accord with the intentions of the moment, as with earlier experience... To perceive is not to experience a host of impressions accompanied by memories capable of clinching them; it is to see, standing forth from a cluster of data, an immanent significance without which no appeal to memory is possible. To remember is not to bring into the focus of consciousness a self-subsistent picture of the past; it is to thrust deeply into the horizon of the past and take apart step by step the interlocked perspectives until the experiences which it epitomizes are as if relieved in their temporal setting (Merleau-Ponty 1962, 22-23).

Being-in-the-world is presence, even in absence. Presence of all entities and things and, especially, the mutual presence of human beings who encounter and perceive each other, who live together in a society, and whose awareness of the presence of others contributes to the formation of their own self and consciousness. As Olafson stated, presence is the presence of entities and things in perception (Olafson 1995, 55). One can look, with Heidegger, at the world as a milieu, as a region of presence. Language expresses this presence in many ways, most frequently with various forms of the verb to be, or presupposing presence like in the event of encounter which is not possible without at least two presences of which one is the perceiving presence. In this sense, presence is, as matter of course, a relational conception, excluding all kinds of speculations of so-called in-itself entities and things. One can talk of presence only in the case of certain kind of entities that possess the characteristics of *Dasein*, because it is true that what makes presence effective are awareness and consciousness. The concept of presence evidences, then, that perception cannot but be an act of awareness and consciousness, and they are linked together. Presence is disclosed, brought out, by perception. But, as Olafson pointed out, presence is differentiated in accordance with variations in perception, or as he put it, in accordance with differences in "sense modalities" (ibid., 59). In this respect, one has to keep in mind the complex and contextual intertwining of perceptions with the

[8] "He who sees, cannot possess the visible unless he is possessed by it, unless he *is of it*, unless, by principle, according to what is required by the articulation of the look with the things, he is one of the visibles, capable, by a singular reversal, seeing them." Merleau-Ponty 1968, 134-135; italics in original.

[9] "There are two ways of being mistaken about quality: one is to make it into an element of consciousness, when it is in fact an object *for* consciousness, to treat it as an incommunicable impression, whereas it always has a meaning; the other is to think that this meaning and this object at the level of quality, are fully developed and determinate. The second error, like the first, springs from our prejudice about the world... We must recognize the indeterminate as a positive phenomenon." Merleau-Ponty 1962, 5-6; italics in original.

coordinated or integrated whole of the life experiences, containing past perceptions (background understandings). Thus, presences may and will vary from one perceiver to another in the pluralistic and relativistic shifts of perspectives.

In the analysis of presence as the outcome of perception, it is necessary as well to deal with the problem of presence in absence, or with absence as a nonoptional modality of presence, particularly in relation to memory. Olafson is right when he explains the difficulty of treating absence as presence (in which case absence would correspond to nonbeing) and to conclude, in consequence of being's temporal and modal qualities, that presence also can only be conceived in the present tense. But, writes Olafson similarly to Merleau-Ponty, "what is expressed by the past tense... is not, however, just a fact that happens to be a past fact; it is also a disclosure of a past state of the world to the person who remembers, and, as such, it is a modality of presence" (ibid., 89). Otherwise, the temporal perspective of existence would be singularly limited since presence is always finitude as well, whereas in perception, presence and absence are frequently continuous, assuring a wide horizon. The continuity resides in the conscious being, the seat of perceptions, in whose awareness and memory past perceptions remain as vivid as they were in the past present. The conscious self ensures the temporal continuity of existence, and what no longer is represents as much existential import to the self as what is not yet. Therefore, remembering is simultaneously a causal and an ontological link between past and present.[10] Going further, it is also evident that absence as presence in memory must be completed by borrowings from other humans, or from traditions of our community, in order to supplement the limited perceptual grasp we have on the world and enrich us with perceptions we could not have ourselves but which were made by others from whom we take them over as we believe that they are true. Such borrowed memories are, then, frequently collapsed with those, which were truly experienced by us in the past as present absences.

Taking presence as a modality of being, absence will then be a modality of nonbeing; the latter standing, as Olafson formulated it, for the finite and exclusionary character of being itself - exclusionary in respect of the presence of other beings (ibid., 121). This represents a radical modality of absence, an implicit contrast, maintaining the exclusionary effect of presence-being in respect of all past actualities located in the memory. The dialectics of being and nonbeing, of presence and absence, offer a wide scale for the imaginative play of the mind and for a resolution of the inherent difficulties of dialectical modalities:

> Just as the actual involves an element of possibility, so possibility, even in its more radical forms, remains dependent on actuality. If this is correct, then the difficulty of applying the concept of presence to what we imagine no longer seems so formidable. That difficulty was simply that because no such entities as the ones we imagine exist, there is therefore nothing that could be present to us. But if... what we imagine is always some transformation of actual entities of the actual world, then what is present is a possibility that attaches to an actual entity (ibid., 126).

Perception of the world by a being-in-the-world, and the presence of the world revealed through perception to him as much as his existence is being revealed to other perceiving beings-in-the-world, is the end of the biological and the starting point of the cultural evolution. The two meet in, and are intertwined with each other, through the possibility of perception with which man has been endowed by his biological nature; they are revealed in a world which witnesses the existence of other biological creatures and of different cultural developments.

Now I will turn to the examination of further aspects of transcendence – awareness and consciousness – consequences of perception and of the presence, for *Dasein*, and of his own self in the world.

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[10] "What *is* remembered is what *was* the case, and because the present event – the remembering – is itself the disclosing of the past event, we cannot stand outside the one and the other and take note of their independence in principle from one another. In these circumstances, it does not seem possible for the person who remembers to describe the remembering in a way that abstracts from the truth of what is remembered... The only way epistemic operations concerned with past fact can be coherently conceived is against a background of prior familiarity with other past facts... the delivrance of unmediated memory." Olafson 1995, 100-101; italics in original.

3. Awareness and Consciousness

Awareness and consciousness are two biologically and mentally based functions of man and represent distinct and sequential stages of his transcendence. Awareness means that one realizes that a world surrounding us exists: It is, as it were, being aware of one's environment, getting acquainted with the context in which one lives. Awareness arises either by sensations, by instincts, or by intuitions or feelings (for example, what one calls premonitory feelings). Probably certain other living organisms like animals have a less or more intensive capacity of awareness – of dangers, for instance. Awareness is closely linked to perception and the presence of self and of others in the world, without perception and presence there can be no awareness. On the other hand, awareness is the indicator that the self perceived something and the surest sign that the existence of the world is taken into account by the self.[11]

Consciousness, or mind in some philosophical usage, especially in John Dewey's writings, is a phenomenon, which, as already Husserl stated, cannot but be consciousness of something. It has two major characteristics: (i) it is the state in which the self, being-in-the-world, *actively* and *selectively* considers of what it became aware through perception in the surrounding world, and, (ii) it is the locus of the *integrating function* of the self, through which it instantly incorporates ever renewed or newly produced perceptions and presences into the complex web of past memories, of happenings here and now, and of expected mutations of the world, of perceptions and presences in the future.[12] This is what Karl Pribram called, with reference to Eccles' theory, transcendental consciousness.[13] By this definition of consciousness' functions I do not want to endorse a cognitive approach, but concur with John Dewey who, consistently with his concept of experience, criticized "the spectator, search-light notion of consciousness," and showed that perception, awareness and consciousness are not cognitive performances, not subject to the criteria of truth and error, but are part of another dimension, the existential one "whose nature may be suggested by reference to imagination, fancy, reverie, affection, love and hate, desire, happiness and misery" (Dewey 1958, 174-175). Dewey, in fact, separates mind and consciousness, and defines the latter in a much more limited sense as denoting "awareness or perception of meanings" (ibid., 303).[14] He practically identifies awareness and

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[11] Sherrington writes in his *Man and His Nature*: "This 'I' which when I move my hand I experience as 'I-doing', how do I perceive it? I do not perceive it. If perception means awareness through sense I do not perceive the 'I'. My awareness and myself are one. I experience it. The 'I-doing' is my awareness of myself in the motor act... This 'I' belongs more immediately to our awareness than does even the spatial world about us, for it is directly experienced. It is the 'self'." Quoted by John Eccles in "Culture: The Creation of Man and the Creator of Man." In Eccles ed. 1985, 262.

[12] Consciousness is not a neurophysiological function in Eccles'' view as well: "A key component of the hypothesis is that the unity of conscious experience is provided by the self-conscious mind and not by the neural machinery of the liaison areas of the cerebral hemisphere. Hitherto it has been impossible to develop any neurophysiological theory that explains how a diversity of brain events comes to be synthetized so that there is a unified conscious experience of global or gestalt character. The brain events remain disparate, being essentially the individual actions of countless neurons that are built into complex circuits and so participate in the spatiotemporal patterns of activity... The experienced unity comes, not from a neurophysiological synthesis, but from the proposed integrating character of the self-conscious mind. It is conjectured that in the first place the self-conscious mind was developed in order to give this unity of the self in all of its conscious experiences and actions." "A Critical Appraisal of Brain/Mind Theories." Ibid., 56-57. In this respect, it is also useful to remember of John Dewey's words: "Perceptibility is an exponent of contingency as it intersects the regular. The impossibility of 'deducing' consciousness from physical laws, the 'impassible gulf' between the physical and the mental, are in reality but conspicuous cases of the general impossibility of deriving the contingent from the necessary, the uncertain from the regular. The anomaly apparent in the occurrence of consciousness is evidence of an anomalous phase in nature itself." Dewey 1958, 348.

[13] Karl H. Pribram, "Evolution of Consciousness," In Eccles. ed. 1985, 203.

[14] A very important distinction in respect of minds is made by Dewey when he wrote: "I say individual minds, not just individuals with minds. The difference between the two ideas is radical. There is an easy way by which thinkers avoid the necessity of facing a genuine problem. It starts with a self, whether bodily or spiritual being immaterial for present purposes, and then endows or identifies that self with mind, a formal capacity for apprehension, devising and belief. On the basis of this assumption, any mind is open to entertain any thought or belief whatsoever. There is here no problem involved of breaking lose from the weight of tradition and custom, of initiating observations and reflections, forming designs and plans, undertaking experiments on the basis of hypotheses, diverging from accepted doctrines and traditions. But the whole history of science, art and morals prove that the mind that appears in individuals is not as such an individual mind. The former is in itself a system of beliefs, recognitions, and ignorances, of acceptances and

consciousness. My definition here includes among the functions of consciousness all aspects of activities that Dewey attributes to the mind. His description of the mind's functions is, however, a text of such richness that I shall cite it extensively, as the qualities attributed by him to the mind can be applied *quid pro quo* to consciousness as well:

> There is thus an obvious difference between mind and consciousness, meaning and an idea... The greater part of mind is only implicit in any conscious act or state; the field of mind – of operative meanings – is enormously wider than that of consciousness. Mind is contextual and persistent; consciousness is focal and transitive. Mind is, so to speak, structural, substantial; a constant background and foreground; perceptive consciousness is process, a series of heres and nows. Mind is a constant luminosity; consciousness intermittent, a series of flashes of varying intensities. The relation of mind to consciousness may be partially suggested by saying that while mind as a system of meanings is subject to disorganization, disequilibration, perturbation, there is no sense in referring to a particular state of awareness in its *immediacy* as either organized or disturbed. An idea is just what it is when it occurs (Dewey 1958, 303-304; italics in original).

Analyzing and synthetizing perceptions and presences signifies a certain freedom of consciousness in how to handle that which entered its awareness.[15] This freedom originates from the independent locus of consciousness, which is the self. The consciousness of the self (as distinguished from self-consciousness or self-awareness) is independent in the sense that its sphere is not determined by *a priori* world-conditions as reflected in perceptions, and the self is able, to a certain extent, to modify these conditions in accordance with its own intentions – precisely because it is a being-in-the-world but, at the same time, transcending the world. Transcendental consciousness breaks through the walls of the determinism of mechanical laws of nature. John Searle expressed the view that the evolutionary advantage represented by consciousness, an emerging property of neurobiological processes,[16] is that it confers on man "much greater flexibility, sensitivity, and creativity" than he could have if he would be equipped by unconscious mechanisms only (Searle 1992, 107 and 109). Young was even more eloquent in explaining consciousness' adaptive role when he said: "No one can provide any complete objective basis: all action is a continual creative choice between alternative possibilities" (Young 1988, 198).

Consciousness integrates the multiform and innumerable perceptions of the world and the meaningful presences, which were disclosed in it, proceeds with an instant synthesis of all elements, encompassing past, present and future, to produce a unified experience.[17] In fact, a specific aspect of human capabilities,

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rejections, of expectancies and appraisals of meanings which have been instituted under the influence of custom and tradition." Dewey 1958, 218.

[15] This freedom of consciousness is sometimes designated with reference to its function, as Dewey wrote, of "*re*-direction, *re*-adaptation, *re*-organization." ibid., 313.

[16] "When we come to consciousness, we cannot perform the ontological reduction. Consciousness is a causally emergent property of the behavior of neurons, and so consciousness is causally reducible to the brain processes. But – and this is what seems so shocking – a perfect science of the brain would still not lead to an ontological reduction of consciousness in the way that our present science can reduce heat, solidity, color, and sound." Searle 1992, 116.

[17] "The consciousness of the unified presupposes the consciousness of the unifying agent and of his act of unification; consciousness of the object presupposes self-consciousness, or rather they are synonymous. In so far, then, as there is consciousness of something, it is because the subject is absolutely nothing and the 'sensations', the 'material' of knowledge are not phases or inhabitants of consciousness, they are part of the constituted world... I start from unified experience and from there acquire, in a secondary way, consciousness of a unifying activity when, taking up the analytical attitude, I break up perception into qualities and sensations, and when, in order to recapture on the basis of these the object into which I was in the first place blindly thrown, I am obliged to suppose an act of synthesis which is merely the counterpart of my analysis. My act of perception, in its unsophisticated form, does not itself bring about this synthesis; it takes advantage of work already done of a general synthesis constituted once and for all." Merleau-Ponty 1962, 237-238.

Already the great positivist Moritz Schick was convinced that there is no consciousness without the unity of consciousness. He wrote more than a half a century ago: "And where is unity of consciousness, the individual moments of consciousness then exist not for themselves but, as it were, for each other. That is, they cannot be considered independently of their neighbors. Torn from their interconnection with them, they would no longer be the same; the

attention, denoting consciousness' freedom mentioned above, is the instrument of directing consciousness to particular perceptions, particular traits of presences or events in the world, and to any content of memory.[18] Attention reveals the intelligible quality or structure of perception, – intelligible in the synthetic whole already obtained, – and leads consciousness to adapt itself to the new perception or world-image and to adopt a new presence in the world. "The miracle of consciousness consists in its bringing to light, through attention, phenomena which re-establish the unity of the object in a new dimension at the very moment when they destroy it" (Merleau-Ponty 1962, 30). Attention, just as consciousness, is part of the self, without assuming a special status like the so-called internal experiences of classical philosophy. The activity of attention takes place in the space of a horizon, which is delimited by consciousness, and the readily available synthesis of all preceding experiences. It is in this sense that Gadamer's famous hermeneutical principle of the fusion of horizons has to be understood whenever *Dasein* meets other beings-in-the-world or intends to comprehend the world itself (it is in a way, the fusion of the individual and cosmic horizons).

In respect of the coordinating capacity or integrating power of consciousness a misunderstanding of the phenomenological conception should be dissipated here. Since Husserl, phenomenology affirms that the act of consciousness and its object are but subjective and objective aspects of the same thing. This is, in my understanding, an analytical device, and does not mean, first, a duality of subject and object, and, second, that each consciousness constructs its own reality. *Each being-in-the-world, each human consciousness constructs its view of reality but it does not construct reality which exists independently of our views*. I am in the world, and my experiences shape my view of this world in the course of my life; you are in the world, and your experiences shape your view of this world in the course of your life. We see the same world, the same reality. Therefore the expression "we construct our world" is badly chosen; Dewey's designation of our forming a view, reconstituting the world, is better.[19] The world does change and, consequently, our view of the world, influenced by biological and cultural givens in accordance from which standpoint we look at the world, simply changes with the changing reality of our common world. We are getting older together, as Alfred Schutz expressed it in a poetic way, but we are getting older together in the same, real world. This is a good example of adaptation through the creation and evolution of culture.

A particularly important form of consciousness (I would not say that the highest form of it as so many thinkers do it because they think exclusively in individualistic terms) is *self-consciousness*, closely linked to awareness of the finitude of human life, or death-awareness. Consciousness of the world implies self-consciousness because we are beings-in-the-world – consciousness is an aspect of the self – and one cannot imagine to be conscious of the world but not to be conscious of oneself. As John Searle says, "the ontology of the mental is essentially a first-person ontology" (Searle 1992, 20).[20] The integrative power of

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interconnection is of their *essence*." Schick, Moritz, *Allgemeine Erkenntnislehre*. 1918/1925. Transl. by A.E. Blumberg as *General Theory of Knowledge*. Wien-New York: Springer-Verlag, 1974, 125.

[18] Concerning memory my view is different from the one advocated by Bergson in that I believe, together with thinkers belonging to the hermeneutical tradition, that consciousness selects from the memory storage elements from the standpoint of the present, whereas Bergson emphasizes the directive role of the past: "The truth is that memory does not consist in a regression from the present to the past, but, on the contrary, in a progression from the past to the present. It is in the past that we place ourselves at a stroke. We start from a 'virtual' state which we lead onwards, step-by-step, through s series of different *planes of consciousness*, up to the goal where it is materialized in an actual perception; that is to say, up to the point where it becomes a present, active state – up to the extreme plane of our consciousness against which our body stands out. In this virtual state, pure memory consists." Bergson 1988, 239-240; italics in original. In fact, I am wondering what pure memory could mean, or, for that matter, any talk in similar terms with regard to consciousness.

[19] As Bergson points out as well in his *Matter and Memory*: "That which is commonly called a *fact* is not reality as it appears to immediate inuition, but an adaptation of the real to the interests of practice and to the exigencies of social life. Pure intuition, external or internal, is that of an undivided continuity." Bergson 1991, 183; italics in original. And later he adds: "Such is the primary and most apparent operation of the perceiving mind: it marks out divisions in the continuity of the extended, simply following the suggestions of our requirement and the needs of practical life. But, in order to divide the real in this manner, we must first persuade ourselves that the real is divisible at will." ibid., 209-210.

[20] In a recent article, Searle expresed his thoughts very clearly in the following manner: "We need to distinguish the *epistemic* sense of the distinction between the first- and the third-person points of view (i.e., between the subjective and the objective) from the *ontological* sense. Some statements can be known to be true or false independently of any prejudices or attitudes on the part of the observers. They are objective in the epistemic sense. For example, if I say, 'Van Gogh died in the south of France', the statement is epistemically objective. But if I say, for example, 'Van Gogh was a better painter than Renoir', that statement is epistemically subjective. Its truth or falsity is a matter, at least in part of the

consciousness, which results in mental and experiential unity, is the basis of our identity as self-conscious selves. It is true that self-consciousness does enter into the formation of worldviews and in the determination of our attitude to the world only in particularly critical states, in general we routinely follow the rules applicable in given situations in our lifeworld.

In dealing with self-consciousness, it is useful to refer to Rom Harré's distinction between self and person. Selves are Cartesian egos, subjectivities, according to Harré, "manifested in the unified organization of perceptions, feelings, and beliefs of each human being with regard to their own experience of themselves... [But] there may be human beings whose belief systems, imaginary anticipations, and so on are organized in some nonunitary way" (Harré 1989, 388). In contradistinction to the self, a person is somebody whose existence is embedded in his lifeworld, social individuals with Harré's expression; a self, whose subjectivity and intentionality are part of a cultural and social whole, and whose behavior and attitudes are interpreted in the framework of a cultural world and a complex web of social, intersubjective commitments. The distinction between self and person does not suggest, in my mind, that there would be two types of self-consciousness. Self-consciousness is the same for both self and person as it is consciousness of the self as being-in-the-world. Self and person possess the same identity because one conditions the other. The juxtaposition of self and person is also useful because it shows the limits of possible individual autonomy – so cherished by the Enlightenment and modernity, – limits imposed on the self by the community of men in which he lives and by the cosmos, the natural world, of which it is a conscious but infinitely small particle.

4. Intentionality and Free Will

Intentionality and free will characterize the active self, armed with the realistic picture conveyed to it by perceptions about the presence of the world, – entities and things as well as other beings with transcendental capabilities. As a result of this awareness, the possession of a comprehensive worldview brings about the integrative activities of consciousness, – a consciousness of the self and of the world.

Intentionality, according to Heidegger, is not a concern directed at a determined object as modern philosophy of science would have it, but it is the disposition of the self to act in its environments, to intervene in the world as being-in-the-world. It is in this sense that Heidegger considered intentionality as relatedness. "Intentionality belongs to the existence of *Dasein*" (1982, 157).[21] It is a disclosure of the self to other beings in the world, interconnectedness with these beings. Thus, intentionality means simultaneously a reaching out towards other beings, and the disclosure of the self to the world. Intentionality is, therefore, is a pre-reflective component of the self's consciousness as a fundamental ontological feature of the transcendence of man, and it is also, at the same time, a characteristic of the self's reflective attitude towards the world. It is then obvious that intentional actions are carried out for reasons a person may have to act but are not necessarily motivated (Habermas 1988, 32-33).

John Searle closely links intentionality to the perceiving, believing and acting human self and to its behavior. Intentionality is a coordinated flow of actions[22] and perceptions, not intrinsically linguistic, operating in cognitive and volitive intentional states. Through this linkage he succeeds to explain intentionality in terms

attitudes and preferences of observers. In addition to this sense of the objective-subjective distinction, there is an ontological sense. Some entities, mountains for example, have an existence which is objective in the sense that it does not depend on any subject. Others, pain for example, are subjective in that their existence depends on being felt by a subject. They have a first-person or subjective ontology." Searle 1995, Part II: 59.

[21] "Intentionality is not an extant relation between an extant subject and an extant object but is constitutive for the relational character of the subject's comportment as such... Transcendence, and hence intentionality, belongs to the nature of the entity that comports itself intentionally. Intentionality is neither something objective nor something subjective in the traditional sense." Heidegger 1982, 313-314.

[22] "An action is a composite entity of which one component is an intention in action. If the composite entity also contains elements which constitute the conditions of satisfaction of the Intentional component... the agent succeeds in the performance of an intentional action... There are no actions, not even unintentional actions. without intentions, because every action has an intention in action as one of its components." Searle 1983, 107.

of the real world in which there are physical and mental processes,[23] thus avoiding the eternal debate on subjectivity and objectivity. Searle affirms "any attempt to reduce intentionality to something nonmental will always fail because it leaves out intentionality" (Searle 1992, 51). As "the ontology of the mental is irreducibly a first-person ontology," the existence of mental phenomena, therefore, cannot be explained in terms of behavior, or causal relations related to behavior (ibid., 95).[24] With reference to the perspectival character of consciousness, Searle emphasizes that an intentional act, containing always a whole proposition, for example a visual act or an intentional belief, both have an intentional content that "determines its conditions of satisfaction" (Searle 1983, 40). Intentionality, as it is a conscious mental event, is aspectual, that is, represents a point of view, a standpoint in the world. However, the intentional object is always grasped in its entirety, even when only an aspect of it figures in the intentional act.

In intentionality, in particular in perception – which for Searle reflects a causal self-referentiality, an intentional and causal transaction with the world[25] it is precisely intentional causation that establishes a fundamental relationship between, on the one hand, the intentional content and, on the other hand, the world containing entities and things which satisfy this content. In fact, causation is part of processes in the world and is, simultaneously, one of the terms of the intentional act, of which the fit between mind and world is the other term, but direction of fit and direction of causation are asymmetrical. In perception, there is a direction of causation of world-to-mind, whereas the direction of fit is mind-to-world. In non-perceptional intentionality, that is, beliefs, actions, or psychological attitudes such as love, which are not always causally self-referential, the direction of causation is mind-to-world and the direction of fit is world-to-mind. In the first instance, the first term conditions the second, and in the second instance either of the terms can condition the other.

The most important contribution of Searle to my conception of intentionality is his elaborate thesis that every intention can only be realized if it is embedded in a network of nonrepresentational mental capacities (interpreting a metaphor, or routine obedience to internalized rules or principles), that is, if it is supported by a network of unconscious, preintentional abilities:[26]

> Intentional phenomena such as meanings, understandings, interpretations, beliefs, desires, and experiences only function within a set of Background capacities that are not themselves intentional. Another way to state this thesis is to say that all representations, whether in language, thought, or experience, only succeed in representing given a set of nonrepresentational capacities. In my technical jargon, intentional phenomena only determine *conditions of satisfaction* relative to a set of capacities that are not themselves intentional. Thus, the same intentional state can determine different conditions of satisfaction, given different Background capacities, and an intentional state will determine no conditions of satisfaction unless it is applied relative to an appropriate Background (Searle 1992, 175-176; italics in original).[27]

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[23] "Two phenomena can be related," writes Searle, "by both causation and realization provided that they are so at different levels of description." ibid., 266.

[24] "A symptom that something is radically wrong with the project is that the intentional notions are inherently normative. They set standards of truth, rationality, consistency, etc., and there is no way that these standards can be intrinsic to a system consisting entirely of brute, blind, nonintentional causal relations." Searle 1992, 51.

[25] Concerning intentional causation, Searle points out that "causation characteristically figures in determining the conditions of satisfaction of Intentional states when it is Intentional causation, that is, when the causal relations occurs as part of the Intentional content." Searle 1983, 66. In fact, causal inputs from the world lead to intentional causation and a kind of causal relativity which, nevertheless, is consistent with the 'most naive realisms'." ibid., 78.

[26] Searle makes the point that the background network of intentionalities is not a metaphysical conception, because it concerns representations, it is located in consciousness but not in reality. Therefore, it does not jeopardize the main tenets of the philosophy of science: external realism, logical connections, correspondence theory of truth, etc. ibid., 191-192.

[27] Searle further distinguishes between the notions of "deep background" and "local background." The deep background "would include at least all of those Background capacities that are common to all normal human beings in virtue of their biological makeup – capacities such as walking, eating, grasping, perceiving, recognizing, and the preintentional stance that takes account of the solidity of things, and the independent existence of objects and other people," and the local background or local cultural practices, which "would include such things as opening doors, drinking bear from bottles, and the preintentional stance that we take toward such things as cars, refrigerators, money, and cocktail parties." ibid., 143-144.

The complex network of these background capacities permeates all intentional belief, act or behavior, and provides enabling conditions for intentionalities in particular cases. The background operates through causal relations without having determining effects on various forms of intentionality. It is the background network which makes possible to understand somebody's intentions and, in general, meaning of actions; but intentionality, as clearly stated above, still leaves open an indefinite range of applications.

If intentionality is given as wide an interpretation as I proposed at the beginning of this section, that is, if it is taken not only as directedness of attention at one specific entity or thing but as intentionality of a being-in-the-world to reach out to its environment, then the fact of man's purposefulness and free will must be acknowledged. This is one of the great scandals for our sciences as its does not fit into the mechanistic world picture most scientists have tried to promote since Lavoisier. From a scientific point of view, even for such a scientist as Eccles, the acceptance of free will and man's purposefulness must be a postulate because not empirically falsifiable. This is partly because of the scientific belief that there can be but causation as relationship between a conscious being and other entities or things, For that matter, causation has to be a one-on-one relation, as multiple causation in the one-to-many or many-to-one direction is not falsifiable either. And, most importantly, there must be causes and not reasons, which must be the motive force behind an event or an action. I contend that human intentionality and free will are linked there could be no free will without intentionality and vice versa. *Free will is intentionality in action completed by determined purposefulness, even in the case of unconscious or routine actions as well as when our actions produce unintended results because our capacity to be able to act freely is constitutive of our background network of intentionalities*.

Intentionality and free will as fundamental aspects of the transcendence of being-in-the-world are, in this perspective, a *par excellence* way of adaptation of the human species produced jointly by the biological and cultural evolutions. If nature's operations are not conceived as exclusively consisting of mechanical causality, then it is not at all beyond imagination that natural selection, a non-teleological and non-purposeful force, happened to hit blindly, through developing human cerebral capacities, on the most adequate means to complement instinctual, animal orientations and to secure for man the best way to adapt himself to ever-changing circumstances: intentionality and free will.

5. Existential Perspectives and Limits of Being-in-the-world: Space, Time and History

In the analysis we made, until now, of being-in-the-world, perception and presence already presupposed the primordial existence of space, which perceptually grounds the environment in which man lives. Space grounds man's world because it is not a material fact, one aspect of entities and objects, but an existential perspective, the presence (including presence in absence) or co-existence of those entities and objects in *Dasein*'s vision who perceives. Perception in space is always holistic, a comprehensive grasp of the world. The great painter Cézanne once said that a painting contains within itself even the smell of a landscape (Merleau-Ponty 1962, 318). In this sense, I agree with Merleau-Ponty that the space-time dimension is a single dimension (ibid., 265), though in order to indicate the quasi-independence of one from the other, I prefer to deal with them separately. The purely geometric concept of space defines it as homogeneous and isotropic but with interchangeable dimensions, in which all things and entities occupy a certain position; in contrast, the space of perception and presence is a *situating* space, not homogeneous and isotropic though manifesting also interchangeable dimensions in which perceived entities and things are present for *Dasein*. This situatedness of everything in the world is due to *Dasein*'s intentionality, not in the sense that intentionality could displace what a person perceives from its position in physical space, but in the sense that it directs itself towards the object of attention; it puts the object, so to speak, in a momentarily privileged position in relation to other extant entities in space. Consequently, *Dasein*, through its will, is able to change the situatedness of the object in question in accordance with its freely chosen purpose. But nothing can change the situatedness of *Dasein*, its contextuality, which is the point of departure of its perception and follow-up action. This original situatedness of *Dasein* can be overcome by it only if it builds on the experience of preceding generations transmitted to it through its body, in the genotype, and through its culture, in tradition. However, this spatialization of space (with Merleau-Ponty's expression), constituting one of the aspects of a human being's transcendental ability, bears in itself severe limitations.

First, the intentional attentiveness and directedness of consciousness is delimited by the existing cosmic space. Man as being-in-the-world cannot create space. It moves, within its own limits, in the given space of the universe. Through its free will, man can create new entities and objects, that is, increase the population existing in the given space without enlarging the latter. In fact, any such expressions as widening, enlarging, make only sense in the space we know. *Dasein*'s absolute here is his own body, the seat of its consciousness, intentionality, and will to act. It is this body that, ultimately, remains the only determinate spatial starting point for *Dasein*.

Second, following his own intentions and free will, a being-in-the-world can modify spatial situatedness and introduce significant changes in space. Though these changes and modifications may, during a certain time, persist and satisfy the needs and purposes for which *Dasein* performed them, they either return to their former situatedness after a given period, or are followed by corresponding changes in the cosmos in order to compensate for the modifications introduced by man. The distancing of things and entities means exactly that they are slipping out of our gaze, that our intention and will loose their grasp on them, that is, their presence, or presence in absence, is fading away.

The third limitation is that the perception of space, and entities and things within it, are unavoidably tied to the perceiving person because it is part of a perceptual dialogue between *Dasein* and the world, between nature – the setting of our lives – and us. As we said above, perceptions of each human being, though they may be in the same space, are basically different. This is the consequence of pluralism and relativism in human existence. But even for the same person, the same spatial perceptions are changing from one moment to another, perspectives are merged into one another, but the underlying unity of the world in which we exist, does not change. It is the holistic relationship of one perception with another, in space and time, which secures for beings-in-the-world the unity of the reality of that world.

In this respect it is important to note that in our times we are subject to a spatial illusion created by science and technology. This is due to the enormous development of information systems and possibilities of communication at worldwide level – what Anthony Giddens calls action at distance.[28] This globalized space which seems to be the dominating feature of our age is, however, for Robertson and other writers, counterbalanced by an increasing importance of the place, offering a presence availability in Giddens' sense, and meaning the contextually defined and motivated action. Such juxtaposition reproduces that of temporal now, the present, to the historical time horizon. The faraway and the nearby mutually influence each other. It is, however, envisaged that the growing trend of the Giddensian space-time distanciation, including the overwhelming domination of the present and future over the past, will probably continue. Now, in the perspective concerning man's ability for spatializing space, the present dialectic of distanciation and contextualization stands as an evidence of the fact that modifications and changes performed by man in space are never to be considered as definitive. Or, put it more succinctly, this is just a new, fashionable form of an old dialectic, which always characterized man's transcendence of spatial existence.

The temporal perspective is a fundamental component of human existence as well because it makes possible planning for the future while benefiting of past experiences. Our awareness and consciousness are always located in the temporal now, but – and this is the very specific human capability – they assimilate in our perception of the now (i) the memory of past events and lessons learned from them, and (ii) the anticipations of future events. Creative imagination plays a great role in these anticipations, and it is crucial that they are not lost but stored in a sort of memory of the future and remembered as past anticipations.

In the anthropological framework developed in the present study, temporal dimension cannot be considered as subjective or as a property of *Dasein* alone. Time is a natural phenomenon in the sense that it represents, possibly in both directions of time's arrow, sequences of events occurring in the cosmos. In this respect, my views are different from those who explicit the essence of time in an anthropocentric-individualist framework such as Heidegger who affirms "there is no nature-time, since all time belongs essentially to *Dasein*" (1982, 262). For him temporality is a structure of occurrence which refers to something that temporalizes itself in a series of succession (Stambaugh 1986, 89). I believe that there is historical time (like

[28] In connection with the problem of distanciation, Giddens emphasized an important, perhaps the most radical, modern disjunction: "But the most radical disjuncture of relevance in modern history (whose relevance today is very far from being exhausted) is the separation of media of communication, by the development of electronic signalling, from the media of transportation, the latter always having involved, by some means or another, the mobility of the human body." Giddens 1984, 122-123.

in specific sciences there is geological time) revealed through the existence of succeeding human generations, and there is the inexorable flow of time in everyday life, in Bergson's words pure duration "of which the flow is continuous and in which we pass insensibly from one state to another: a continuity which is really lived, but artificially decomposed for the greater convenience of customary knowledge" (1991, 186).[29]

Merleau-Ponty, who is also under the influence of the Kantian perception of time as mental category, considers temporal dimension as one's relations to things, an actual succession of events in the world that one observes and records from the outside. Time presupposes a temporal perspective. It is curious that Merleau-Ponty distinguishes between human finite time and nature's infinite time because human time is a succession of instances of now though not a sequence of temporal nows as does Buddhism in a similar way.[30] From the now one cannot reconstruct the past nor to construct a possible future, it is "consciousness [which] constructs or deploys time" (1962, 411-414).[31] The Husserlian retentions (of the past) and protentions (of the future) are amalgamated into a single, run off phenomenon, aspects of the now: "Each present reasserts the presence of the whole past which it supplants, and anticipates that of all that is to come, and that by definition the present is not shut up within itself, but transcends itself towards a future and a past" (ibid., 429).

The last quotation, however, shows that Merleau-Ponty's passage of time is not really different from the conception put forward by Bergson or Schutz, and does not really prove that time is constituted by an ultimate subjectivity in the stream of consciousness. Merleau-Ponty even says later that "time exists for me only because I am situated in it" (ibid., 423). How can then time be a construct of my consciousness if I am situated in it?

George Herbert Mead initiated the sociological analysis of time and affirms that the only existential reality is time in the present. Past and future are hypothetical though they are linked to the emergent present, which becomes past, and to the present, which will emerge and therefore is yet a future (what just happened conditions what is emerging in the future). "Durations are a continual sliding of presents into each other...Reality then is always in a present... When the present has passed it no longer is" (Mead 1980, 28). Mead's point of view is closely linked to his social philosophy – the social nature of the present being based on the continuous readjustment process in society following successive moments of emergence in individual existences (ibid., 47-52).

Luhmann completes this evolution of the concept of temporality. We can characterize his views as anthropocentric-cultural, because he defines time

> As the social interpretation of reality with respect to the difference between past and future... [Change] predetermines the universality of time at the cultural level. But it remains, by and large, open for cultural elaboration and variation, precisely because it is a *universal* predisposition for the temporalizing of experience (Luhmann 1982, 274; italics in original).

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[29] "The duration lived by our consciousness is a duration with its own determined rhythm, a duration very different from the time of the physicist, which can store up, in a given interval, as great a number of phenomena, as we please... We must distinguish here between our own duration and time in general. In our duration – the duration which our consciousness perceives – a given interval can only contain a limited number of phenomena of which we are aware." Bergson 1991, 205-206.

[30] In Buddhism, "the theory of Universal Momentariness implies that every duration in time consists in point-instant following one another, every extension in space consists of point-instants arising in contiguity and simultaneously, every motion consists of the point-instants arising in contiguity and in succession. There is therefore no Time, no Space and no Motion over and above the point-instants of which these imagined entities are constructed by our imagination." Stcherbatsky 1962, 84.

[31] "Time as the immanent object of consciousness is time brought down to a uniform level, in other words it is no longer time at all. There can be time only if it is not completely deployed, only provided that past, present and future do not all three have their being in the same sense. It is of the essence of time to be in process of self-production, and not to be; never, that is, completely constituted. Constituted time, the series of possible relations in terms of before and after, is not time itself, but the ultimate recording of time, the result of its *passage*... In short, since in time being and passing are synonymous, by becoming past, the event does not cease to be. The origin of objective time, with its fixed positions lying beneath our gaze, is not to be thought in any eternal synthesis, but in the mutual harmonizing and overlapping of past and future through the present, and in the very passing of time." Merleau-Ponty 1962: 415 and 419-420; italics in original.

Thus, time becomes, instead of being a construction of individual consciousness, a concept elaborated in each cultural context, but these latter are linked together as a universal, though contingent, element of human culture. In complex societies, time is scarce as the future is the predominant temporal perspective. In fact time replaces reality, says Luhmann, and the need of temporal integration, reducing complexity, becomes manifest. He sees as temporal integrative factors utopianism, on the one hand, and technology, on the other hand. However, it appears to me that in Luhmann's perspective the main integrative factor of temporality in complex societies – a nontemporal extension of time – are social communication and the functioning of social systems. The social context means "a simultaneous integration of the perspectives of different actors" (a coexisting plurality of times in Koselleck's words). It offers to all contemporaries the benefit of the time horizons of others, "the prospect of sequential social presents that will endlessly constitute new futures and new pasts" (ibid., 280-286). It is interesting to note that Luhmann's sequential social present resembles to the cyclical pattern or rhythm of eternal repetition which one can find in many African cultures (replacing the cumulative pattern in other civilizations), for example in the worldview of the Tallensi in the north of Ghana[32] or in that of the Nuer (Evans-Pritchard 1962, 103-104).

In fact, the view that human time is embedded in cosmic time was accepted by most civilizations other than the Western. The Chinese man had his place in cosmic space and time; thus the temporal dimension was described as a twofold reality. Cosmic processes, on the one hand, represented cyclic temporality in which all stages were simultaneously present; these included the generative process of the self-contained cosmos itself. On the other hand, there was the linear time of human history containing man's cumulative achievements – cultural, social, or otherwise – which corresponds thus to our historical time. This linear, developing time was also in Taoism the locus of changes in the human world, which represented natural growth with some regularity. Temporal changes had positive as much as negative aspects, expressed in paired polarities such as creation and disappearance. This was not a deterministic belief, but a belief in the inner tendency of things, of the world in which men live.

Human time as opposed to world-time or nature's time takes on three forms:

Biological time, which is the unchangeable, fundamental given of human existence. It inexorably expresses human finitude reflected by man's death-awareness, which distinguishes humans from all other species. *Biological time is what links together the time of the cosmos and the temporality of man's existence*, and inspired all human efforts to transcend the immanent world towards an ultimate reality which is beyond this temporal finitude.

Existential time is the temporal dimension of our everyday life what Bergson described as pure duration, a constant transition from one now to another, differentiated from world-time because constituted by discrete, sometimes apparently discontinuous events and changes. But flowing time, the pure duration, becomes only an existential reality when it enters human awareness as a fundamental aspect of existence. This makes us being conscious not only of this earthly existence but of the inevitability of that final encounter with the end of our existence. Existential time, through reflective consciousness, includes also one's biographical past and one's expectations for the future and, on a wider and longer horizon, the history of succeeding human generations and their accumulated experience embodied in our cultural traditions, because temporality comprises an expectational horizon as well "the future made present" (Koselleck 1985, 272). As Merleau-Ponty wrote with reference to Husserl, "it is through temporality that there can be, without contradiction, ipseity, significance, and reason" (1962, 426).

Historical time gives a specific dimension to human temporality linking together generations of men and enriching their existential experience with that of bygone ages in the form of cultural traditions and established and proven practices. The self-reflexive historical process itself is anchored at two levels: the genetic level at which reproduction is a historic phenomenon, and the cultural level at which historical development includes a wide range of transmitted meaning-complexes, belief- and value-systems, reasoning patterns, behavioral repertoires, and artistic accomplishments. Human identities are shaped by these historic pasts as much as by our biographical past, and both contribute to formulate reasonable expectations for the future. Historical time is all the more important as it expresses one of the fundamental aspects of *Dasein*, being-in-the-world, namely, it's being embedded in a community with others. This means that being part of a specific human community is a constitutive element of an individual *Dasein*'s existence. This community is composed not only of contemporaries but of past and future generations as well. Therefore historic time, with

[32] Fortes, M. *The Dynamics of Clanship Among the Tallensi*. London: Oxford University Press, 1945, x.

its transmission of cultural heritage and shared tradition, plays an important role in the wider arc of an individual human biography.[33]

Lessons disclosed by historical temporality are very important for future generations if they want to learn of what happened in the preceding ages of humanity. I just mention here two of the occurrences, which are an enigma for anybody, interested in great upheavals or great events of our history. The first concerns the disappearances of not only great empires but of the past's great civilizations like the Khmer civilization which flourished between the 9th and the 15th centuries. Seeing the wonders of Angkor and such unsurpassable achievements of Khmer art as the temple of Bayon, one has to explore the reasons – ecological, biological, cultural or economic, surely a multiple causality if there is one, at work[34] – which led to the ruin a complex civilization. Second, there is the enigma of the appearance in particular phases of human history and in specific cultural contexts, of a cluster of especially gifted men, – thinkers, artists, constructive or destructive geniuses. One has to think only of Florence in the 15th and 16th centuries or of the territories falling into the German cultural orbit at the end of the 18th century. The reasons for such an appearance of great men at certain times can only be speculated on. Again, there must be biological, cultural, social and economic phenomena the interaction of which produced the emergence of such clusters of outstanding personalities. Inasmuch as one can only speculate about the reasons for the terrifying lack of paramount leaders in social and political matters at other points in the flux of historical time.

[33] "The histiory of society," says Wolff, "is a collective narrative, constituted by the members of the society as they construct their historical time, through their projects, recollections, myths, and memories, and through 'objectifications of the spirit' in social, economic, and political institutions. The shared social meanings *are* the society, and the temporal organization of those meanings *is* their history." Wolff 1990, 220.

[34] Recent investigations indicated that one of the reasons of the decline and disappearance of the Khmer civilization was the scarcity of water, probably due to overpopulation of the cities and of a relatively limited surface on which the Khmer culture thrived. In addition, there certainly was, in accordance with our present biological knowledge, a genetic drift due to certain social practices. Finally, it may be that this case is an excellent example of what one could term the exhaustion of a culture pattern which did not produce anymore the vital, creative forces necessary to maintain the civilizational framework and the shrinking empire.

CHAPTER SIX

TRANSCENDENCE AND CULTURE – Part One

1. The Meaning and Significance of Culture

Having analyzed the essence of transcendence, we have to examine now the sense and significance of culture as the domain of human activity in which man's existential transcendence is realized through pluralism and diversity. It is useful to recall, again, that in dealing with culture we do not leave behind our biological background, our genotypic and phenotypic configuration, because the latter constitute, to some extent, the foundation of human cultural transcendence. From the strictly evolutionist-biological point of view, culture represents the changing patterns of response to the environment (Levins, and Lewontin 1985, 42).[1] But in our more complete synthesis, human existence is built on the two interacting information systems: biological heritage and cultural creativity-cum-tradition which is a *sui generis* domain of human existence but which, at the same time, also ensures the continuous adaptation of the species to unforeseeable events and contingent circumstances. Julian Huxley recognized that cultural evolution is "a process differing radically from biological evolution, with its own laws and mechanisms and modalities, and not capable of explanation on purely biological grounds."[2] Without culture there could be no man, as much as without man there could be no culture. In fact, culture represents interplay between man and his environment, an interplay that changes both, man and his surroundings, for better or for worse. Culture is simultaneously a configuration of meanings and symbols, and a pattern of behavior as well as a process of action related to those meanings and symbols.

Without intending to review in detail all definitions of culture given by generations of anthropologists, I refer, nevertheless, here to some of them. The definition of culture given by the anthropologists Kroeber and Kluckhohn in the fifties – which, of course, bears the limitations of the behaviorist thinking, and of the anthropological and ethnographic scientific endeavors of the age – is the following:

> Culture consists of patterns, explicit and implicit, for behavior acquired and transmitted by symbols, constituting the distinctive achievement of human groups, including their embodiments in artifacts; the essential core of culture

[1] Levins and Lewontin embrace the sociological interpretation of culture: "The important point is that human society arises out of animal social organization, but as it arises, it transforms the significance of adaptations and creates new needs. As society gives rise to class divisions, the human population ceases to be the unit of adaptation. Thereafter, each regular interaction of people in a given culture with nature is determined by the interests of the different social classes in their conflictive or cooperative social relations with each other." Levins, and Lewontin 1985, 46.

[2] Huxley, Julian. 1947. *Touchstone for Ethics, 1803-1943*. New York: Harper, 1947. Quoted in Hayek 1988, 25. Donald Campbell, promoter of evolutionary epistemology, represented the same point of view: "I am convinced that in past human history, an adaptive social evolution of organizational principles, moral norms, and transcendent belief systems took place. Instances of independent but convergent evolution help make the case for systematic selection systems that are not directly observable". Campbell, Donald T. 1975. "On the Conflicts Between Biological and Social Evolution and Between Psychology and Moral Tradition." *American Psychologist*, 30: 1106.

consists of traditional (i.e., historically derived and selected) ideas and especially their attached values;[3] culture systems[4] may, on the one hand, be considered as products of action, on the other as conditioning elements of further action (Kroeber, and Kluckhohn 1963, 357).

Kroeber particularly emphasizes two faculties of man as distinguishing him from the animal world: first, the faculty of speech and, second, his capability of symbolizing, abstraction, and generalizing. The ideas, habits, and achievements produced through the use of these cultural endowments are transmitted from generation to generation. Culture and tradition are therefore cumulative. Cultural heritage has an overwhelming importance for men. "They are all influenced by the culture they grow up in; in fact, in a broad way, they are dependent on it for most of the specific things they do in their lives" (Kroeber 1963, 8). In consequence, culture, for Kroeber, influences the lives not only of individuals but of societies as well.

Some social scientists continued to consider culture, following Max Weber's path, according to which culture is "an internally generated symbolic system that responds to compelling metaphysical needs" (Alexander, and Seidman 1990, 15). Culture represents traditional patterns of meaning and orientation and is one of Weber's world orders – autonomous spheres – not differentiated from among, but co-determined simultaneously with, other orders such as society. The Weberian conceptualization of culture does not exclude but rather promotes the view that culture is embedded in a socially structured context and processes. Thus, for a majority of social scientists, as John Thompson expressed it, culture is "a meaningful constitution and social contextualization of symbolic forms" (Thompson 1990, 123 and 136).[5] This same view was also expressed by Anthony Giddens for whom cultural phenomena such as symbolism are aspects of the social system (Giddens 1984, 39, note 43). Edmund Leach who took the social and the cultural as two aspects of the same reality, and saw the main function of culture in that it renders possible mutual intelligibility among humans.[6]

Another version of the social explanation of cultural development is the one put forward by Jonathan Friedman who wrote recently "culture is practiced and constituted out of practice." It is its transmittance through social relations from one person to another or from one generation to another, that gives culture its importance. However, it appears sometimes, in the same text, that Friedman links cultural identity to the individual human person. He considers that culture merely serves to specify identities and identity-spaces, but "the practice of identity is about the identification of an existential world, the attribution of meaning to the

[3] IKroeber's definition of values goes like this: "Cultures differ in their values; each one shapes, or at least colors, its own. Values in this technical or philosophical sense might be informally defined as those things – cultural products, standards, or ideas – which men living in societies prize and hold as having a high importance, for them, for their group and descendants, and in themselves, over and beyond their practical utility." Kroeber 1963, 103.

[4] "Cultures are systems (that is, are organized) because the variables are interdependent. All systems appear to acquire certain properties that characterize the system *qua* system rather than the sum of isolable elements. Among these properties is that of directionality or 'drift'. There is a momentum quality to cultural systems. The performance of a culturally patterned activity appears to carry with it implications for its own change which is by no means altogether random... There is probably 'cultural drift' in general. There may even be in some sense 'cultural orthogenesis' within particular limited scopes; that is, the direction of at least some culture change is more predetermined by earlier forms of the culture than caused by environmental press and individual variability." Kroeber, and Kluckhohn 1963, 374; italics in original.

[5] Jeffrey Alexander's definition of culture is very similar: "From the analytic perspective, every social object can be analyzed as a cultural object, every social structure as a 'cultural structure'... Events, actors, roles, groups, and institutions, as elements in a concrete society, are part of a social system; they are simultaneously, however, part of a cultural system that overlaps but is not contiguous with the society. I define culture as an organized set of meaningfully understood symbolic patterns." Alexander, Jeffrey. "The Promise of a Cultural Sociology: Technological Discourse and the Sacred and Profane Information Machine.: In Munch, and Smelser. eds. 1992. 295.

[6] Leach emphasizes, in addition, the innovative and the conservative forces operating through cultures: "All culture has this dual characteristic: culture develops through the dialectical reinterpretation of symbolic categories, yet at the same time the established culture of any particular group operates as an active force which seeks to impose on all new recruits the life-ways of existing members." Leach, Edmund R. "Cultural and Social Cohesion: An Anthropologist's View." In Holton. ed. 1965, 33.

world, to objects, persons, and relations. This practice identifies the self as it identifies the world."[7] Talcott Parsons' evolutionary view of societies and cultures emphasized particularly the generalized adaptive capacity of human beings and, in accordance with that view, brought forth the necessity to analyze processes of change. Developmental steps, as he called them, are conditioned by a series of factors. "Higher-order factors (within a social system, normative factors) must meet the conditions of becoming institutionalized in order to determine stable patterns of concrete action" (Parsons 1977, 235).[8]

Finally, Clifford Geertz puts forward a peculiar conception of culture, in dissonance with all other formulations of this concept though connected with the view that culture is a socially embedded phenomenon, linked to a public and not only to an individual context. He describes human culture as a set of control mechanisms – computer software-like programs, plans, rules, and instructions – which govern behavior and action. He thus emphasizes the mechanisms or procedures which transform man's innate but inherent capacities into narrow, specific accomplishments, or into real action patterns (the interaction of the Meadean significant symbols) prevalent in human existence. Geertz affirms, and this is, perhaps, his most important contribution to the elaboration of the culture concept, that humans being incomplete and unfinished animals, they could not survive without culture:

> Undirected by *cultural patterns* – *organized systems of significant symbols* – man's behavior would be virtually ungovernable, a mere chaos of pointless acts and exploding emotions, his experience virtually shapeless. Culture, the accumulated totality of such patterns, is not just an ornament of human existence but – the principal basis of its specificity – an essential condition of it (Geertz 1973, 46, 49-50; italics in original).

In this view, man's great plasticity, his capacity for learning and for the apprehension and application of symbolic meanings, are the true sources of culture. Here, Geertz follows in the footsteps of many other thinkers like, for example, Arnold Gehlen who contended that man's survival in this world is only possible because in his nature there is an openness to the world, a separation of actions from impulses, a 'hiatus' (Gehlen 1988, 330), as described by Geertz.

Culture opened entirely new vistas, unavailable to other living organisms in nature. *Culture is constitutive, simultaneously, of individuals and communities, which are both contributing to its configuration and development*. Therefore, the essential activities of human culture can be summarized as meaning-creation, symbolization – including abstraction and generalization – myth and ritual, language-creation and use, patterns of reasoning, and, finally, action-orientation. To the study of each of these activities, in this and the next chapter, I now turn.

2. Meaning-Creation and Understanding

Giving meaning to the world and its phenomena, to the human community, and to oneself as being-in-the-world and acting in the world, is the most fundamental activity of man, reflecting his ability to transcend his worldly existence. It is the ordering of human experience, with Luhmann's expression, or the ongoing reconstruction of a meaningfully constituted reality. The imperious human need for meaning is the product of the urge to explain and to understand, in a holistic framework, the environment surrounding us, which encompasses the mysteries of nature and life. *The meaning-creating function therefore is an ontological act as it refers to something beyond human experience, though it integrates our experiences with our being-in-*

[7] Friedman, Jonathan. "Global System, Globalization and the Parameters of Modernity." In Featherstone; Lash; and Robertson. eds. 1995, 81 and 86.

[8] "Differences in non-cultural and non-normative conditions and the ways in which they are combined with the cultural and normative factors account for much of the variation that makes any linear theory of societal evolution untenable. But a feature of the evolutionary process is that greater differentiation increasingly frees the cybernetically higher factors from the specifics of the lower-order conditioning factors, thus enabling the patterns of the cultural system to become more generalized, objectified, and stabilized. These developments enhance the cultural system's potential to control wider ranges of factors at the conditional levels." Parsons 1977, 235.

the-world. This is the reason why most cultures and civilizations in the world are centered on a religious or mythic core which gives a meaning to overwhelming natural and ethical realities like the alternation of seasons or the miraculous birth and inexorable death of humans. In fact, Western civilization is the only one trying to eliminate, at least partially, its religious or mythical core. Science, which took over the truly totalizing meaning-attributing function since the Enlightenment – or, at least, it seemed so until the disappointments of the last decades destroyed confidence in the world picture put forward by science.

Without meaning-creation there could not be any understanding of the world, – as meaning-constitution is governed by configurational awareness and pattern recognition. Heidegger grounded meaning-creation in the deep ontological layers of human existence. He based understanding and interpretation, and consequently meaning-configuration, on what he called the *fore-structure* – the innate human capacity, manifest in the awareness and consciousness of *Dasein*, to grasp, to intuitively know, to discover what is the world, what are entities, things, or events occurring in it.[9] It is the fore-structure that, for Heidegger, produces understanding and interpretation through meaning:

> Meaning is an *existentiale* of Dasein, not a property attaching to entities... Dasein only 'has' meaning, so far as disclosedness of Being-in-the-world can be 'filled in' by entities discoverable in that disclosedness. *Hence only Dasein can be meaningful or meaningless*. That is to say, its own Being and the entities disclosed with its Being can be appropriated in understanding, or can remain relegated to non-understanding (Heidegger 1962, 193; italics in original).

Meaning attribution as disclosure is for Heidegger also related to the significance of beings as the precondition of understanding and interpretation. In my own view, significance is already an evaluative step carried out by *Dasein* based on particular meanings attributed to phenomena in the world and on the integrated, coherent whole of such meanings.[10] It belongs to the ontological makeup of man, but, at the same time, it links the ontological to the ontic as meaning-attribution represents the bridging of the distinction between these two spheres of existence. Finally, in the perspective of the Heideggerian philosophy, meaning follows the regulative dialectic of identity and negation. To meaning belongs unmeaning or non-meaning, something "essentially devoid of any meaning at all," which is not to be understood in an evaluative sense but as an ontological characteristic. "*And only that which is unmeaning can be absurd*" (ibid., italics in original).

It is therefore clear that meaning giving can be pre-reflective as well as reflective,[11] but in the latter case meaning attribution is part of a context based on pre-reflective meanings (the antecedent, taken-for-granted

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[9] In view of the importance and richness in ideas of the ontological grounding of meaning, understanding, and interpretation, and what he calls the "totality of involvement" of human beings, I quote extensively here the relevant text from *Being and Time*: "This totality needs to be grasped explicitly by a thematic interpretation. Even if it has undergone such an interpretation, it recedes into an understanding which does not stand out from the background. And this is the very mode in which it is the essential foundation for everyday circumspective interpretation. In every case this interpretation is grounded in *something we have in advance* – in a *fore-having*... When something is understood but is still unveiled, it becomes unveiled by an act of appropriation, and this is always done under the guidance of a point of view, which fixes that with regard to which what is understood is to be interpreted. In every case interpretation is grounded in *something we see in advance* – in a *fore-sight*... In such an interpretation, the way in which the entity we are interpreting is to be conceived can be drawn from the entity itself, or the interpretation can force the entity into concepts to which it is opposed in its manner of Being. In either case, the interpretation has already decided for a definite way of conceiving it, either with finality or with reservations; it is grounded in *something we grasp in advance* – in a *fore-conception*." Heidegger 1962, 191; italics in original.

[10] This leads to the hermeneutic circle: "The 'circle' in understanding belongs to the structure of sense, and the latter phenomenon is rooted in the existential make-up of Dasein – that is, in the understanding which interprets. A being for which, as being-in-the-world, its being is itself an issue, has, ontologically, a circular structure." Heidegger 1962, 195.

[11] This is one of the points at which my thinking differs from that of Schutz who affirmed: "It is misleading to say that experiences *have* meaning. Meaning does not lie *in* experience. Rather, those experiences are meaningful which are grasped reflectively. The meaning its the *way* in which the Ego regards its experience. The meaning lies in the attitude of the Ego toward that part of its stream of consciousness which has already flowed by, toward its 'elapsed duration'." Schutz 1967, 69; italics in original.

stock of meanings with Dewey's expression). Meaning-creation is, nevertheless, an intentional act even if it is with reference to meanings stored in the memory, whether recovered consciously or intuitively. As already Ricoeur pointed out, man's cultural development includes the creative reinterpretation of his cultural heritage (Ricoeur 1981, 97). This means the creative reinterpretation of meanings, the re-evaluation of traditional meaning-stratifications or interconnected complexes of meaning by every new generation. Therefore, meaning-creation is an incessant activity in the history of mankind. Meaning is not information,[12] but a selective relation with the world, a relation which, and this is a most important insight of Niklas Luhmann, reduces as well as preserves complexity, and, at the same time, identifies a complex of possibilities. One of the crucial components of human transcendence and freedom is man's possibility of negation.[13] Negativity therefore plays a functional role in the constitution of meaning (Luhmann 1990, 27). But the negation referred to by Luhmann in respect of meaning, as selective relation, is a negation which differentiates in order to constitute a multidimensional world, – a world in which a plurality of mutually independent dimensions differentiate the experience of being-in-the-world (ibid., 36).

I agree with Hilary Putnam whose concept of internal realism considers "not that language mirrors the world but that *speakers* mirror the world – i.e. their environment – in the sense of *constructing a symbolic representation of that environment*" (Putnam 1978, 123). Meaning-creation is then not an arbitrary act of an individual person, not only because a meaning has to be integrated into a comprehensive whole of meaning configurations, but also because *meaning-attribution is an existential mode of every human being living in the same world*. Meanings, in this perspective, cannot be said to be objective or subjective, as it was commonly believed in the old philosophical style. Subjective meanings either become objective as they obtain an intersubjective endorsement,[14] or they perish for several reasons. For example, because they do not fit in the otherwise accepted significant meaning-network, or because they are incapable to govern the action because there is no fit between them and the world. I believe that it is unnecessary to speak of meaning-endowing, conscious experiences, as Husserl does, because man's functions and actions, as being-in-the-world, are automatically related to existence, to a comprehensive configuration of meanings. In contrast, the intentional character of meaning attribution is important in order to link this act to the ontology of being: "Intentional change in direction of events *is* transforming change in the *meaning* of those events" (Dewey 1958, 316; italics in original), and leads to meaning variance.

Dewey's insight that meanings are relative to their existential contexts and that the same referent may have several meanings vested of different immediate values, is entirely concordant with my view of human being's transcendental, meaning-attributing capabilities:

I presume that the difference comes from Schutz' adhering to the Bergsonian conception of life as duration and from his basically individualistic outlook. In contrast to Schultz, it is useful to quote here Niklas Luhmann who wrote in one of his recent books that "a closer analysis of this life of consciousness would have to, at the very least, distinguish between, on the one hand, intentions that consciously constitute the self as a system-in-the-world and, on the other, the reflexivity of particular kinds of processes within consciousness, for example, the thinking of thought, the feeling of feeling, the willing of willing – which... do make possible a more complex constitution of the self system." Luhmann 1990, 23.

[12] Luhmann aptly shows, using a practical criterion, the difference between meaning and information: "On being repeated, a message or report loses its information value, but not its meaning. Unlike the concept of meaning, that of information is always to be understood relative to an actually given, constantly changing state of knowledge and an individually structured preparedness to process information. The very same meaning complex can thus result in quite different information, depending on when and by whom it is actualized in experience." ibid., 31.

[13] "The specific potency of negation, something not to be found in the pure givenness of actual impressions, in perception, or in imagination, stems from its own combination of *reflexivity* and *generalization*. Negation is a reflexive (and a necessarily reflexive) process form of experience. It can be applied to itself, and this possibility of the negation of negation is indispensable in any experience that can negate at all. This, however, means that all negation remains irredeemably provisional and does not permanently block our access to what has been negated. Only time, not negation, eliminates possibilities definitely." Luhmann 1990, 28; italics in original. Negation is, in fact, otherness; therefore, Luhmann also formulates the essence of negation with reference to the identical meanings: "Identical meaning stands as well-specified or specifiable complex against the background of indeterminate and negatably negated other possibilities." ibid., 36.

[14] Even for Schutz, "every act of mine through which I endow the world with meaning refers back to some meaning-endowing act (*Sinngebung*) of yours with respect to the same world." Schutz 1967, 32; italics in original.

> So with experience in the sense of things that are experienced; they are *what* they are. But their occurrence as experienced things is ascertained to be dependent upon attitudes and dispositions; the manner of the happening is found to be affected by the habits of the organic individual... The present thesis sticks to the common-sense belief that universals, relations, meanings, are of and about existences, not their exhaustive ingredients. The same existential events are capable of an infinite number of meanings... Since possibilities of conjunction are endless, and since the consequences of any of them may at some time be significant, its potential meanings are endless... Ghosts, centaurs, tribal gods, Helen of Troy and Ophelia of Denmark are as much the meanings of events as are flesh and blood, horses, Florence Nightingale and Madame Curie... It seems questionable only when its significance is altered; when it is taken to denote that, because they are all meanings of events, they all are the same kind of meanings with respect to validity of reference (ibid., 236 and 319-320; italics in original).[15]

There are ways of conceptualizing the environment, of breaking the world down into things, as Quine wrote, common in all cultures (Quine 1980, 61). These common ways, however, can only be discovered in respect of simple things and observations of everyday circumstances like climatic conditions. As soon as meanings of somewhat higher-level realities are concerned, the embeddedness of meanings between the boundaries of a worldview, of a comprehensive configuration of meanings, will promote the widest diversity. That explains the pluralism of meanings and related point of views, and the relativity of meaning-creation acts bound to specific human contexts. Hull is right in saying that "if there are any cultural universals, one of them is surely a persistent distaste for variability" (Hull 1989, 14).[16]

3. Symbolism, Abstraction and Generalization

Symbolism is the *par excellence* human capability of transcendence, and many consider it as the core of man's cultural activities. *Symbols stand for meanings given by man to entities, things, events, ideas, or thoughts, – precisely to express their relatedness in a holistic manner and to incorporate the symbolized realities in a comprehensive worldview constituted by the interrelated and interdependent meanings*. Human symbolism is not created just to express in a particular way imaginings of the human mind; symbols are indispensable to the articulation of a comprehensive worldview They represent not a synthesis but a symbiosis of related, and intuitively though not immediately perceived meanings. Through relating particular entities, things, events, ideas or thoughts to the whole, symbolism is bridging the gap between the ontological and ontic worlds in which man's existence is embedded. It is in connection with this, – and this feature is fundamental for the comprehension of human symbolic capacities, – that symbolism moves in a modal space, whereby I understand that symbolism may relate to the real and actual as well as to the possible or ideal worlds. This modal space of symbolism is related to the fact that it is the bearer of meanings created by man, which concern either the ontological or the ontic realms of the cosmos and of human existence.

Cassirer clearly pointed out the important difference between symbols and signals:

> Signals and symbols belong to two different universes of discourse: a signal is a part of the physical world of being; a symbol is a part of the human world of meaning. Signals are 'operators'; symbols are 'designators'. Signals, even when understood and used as such, have nevertheless a sort of physical or substantial being; symbols have only a functional value (Cassirer 1946, 32).

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[15] A further quotation from Dewey makes his views concerning common sense meanings more explicit: "Common-sense has no great occasion to distinguish between bare events and objects; objects being events-with-meanings. Events are present and operative *anyway*; what concerns us is their meanings expressed in expectations, beliefs, inferences, regarding their potentialities... Events have effects or consequences anyway; and since meaning is awareness of these consequences before they actually occur, reflective inquiry which converts an event into an object is the same thing as finding out a meaning which the event already possesses by imputation." Dewey 1958, 324-325; italics in original.

[16] "But if genetic variability characterizes species even though everyone is absolutely certain that it does not, then possibly a similar variability characterizes cultures even though the parallel conviction about cultures is, if anything, stronger." Hull 1989, 14.

Though Cassirer's text reflects his adherence to the German idealistic philosophy – the separation of the physical and human worlds, a thesis that is irreconcilable with the realistically phenomenological standpoint taken in this study – it correctly expresses what is the essence of symbolism. The difference between signals and symbols is further explicited by Cassirer when he opposes the versatility of symbols to the fixed, unchangeable and unique referents of signals. The functional value of symbols consists, first, in their universal applicability, and, second, in their extreme variability for which the different linguistic symbols standing for the same entities, things, events, ideas or thoughts constitute the best example.

John Thompson had the insight that symbolic forms represent the internal structure of a culture and listed five aspects of these forms (Thompson, John 1990, 137-153). They are (i) *intentional* – the meaning of such forms is intentionally produced by a person, although the meaning is not obligatorily expressing, in all cases, the intended content; (ii) *conventional* – symbolic forms are created or interpreted in accordance with rules, conventions, or codes incorporated in social institutions (clusters of rules and resources);[17] (iii) *structural* – displaying an articulated structure or, with Heidegger's expression, they are involved with a contexture; (iv) *referential* – symbols refer to something and, in my construal of symbolism, explain the involvement of symbols with the whole symbolic universe; and, finally, (v) *contextual* – symbolic forms are always embedded in particular historical and social contexts and processes, and thus in concrete spatio-temporal settings. Referentiality and contextuality, then, mean that the creation of symbolic forms is a result of an interaction between individuals and a cultural community. Therefore symbolic forms are inevitably integrated in a symbolic universe.

To indicate different types of symbolism, examples can be given through artistic symbolism, on the one hand, and the role of symbolism in generalizing or abstract thinking, on the other hand. The symbolism of art, which is a *par excellence* case of meaning-creation, of the fusion of the possible and the actual worlds, constitutes a means, in the literal or metaphorical sense, to penetrate these worlds:[18]

> The essential and characteristic achievement of all symbolic forms – whether of language, myth, or pure cognition – does not lie simply in receiving given material impressions... and then grafting onto them, as though from outside, another form originating in the independent energy of consciousness... On sharper analysis even the apparently 'given' proves to have passed through certain acts of linguistic, mythical, or logical-theoretical apperception. Only what is *made* in these acts 'is'... it is this primary, not the secondary, formation which contains the true secret of all symbolic form (Cassirer 1955, 2: 94; italics in original).

Art, therefore, is a discovery and intensification of reality and beauty, and in accordance with the classical formula, reaches unity in the manifold. Art can only be such because it is not a cognitive process, not abstraction, but an intuitive act aiming at concretization. But intuition must be complemented, as a major element of symbolic artistic creation, by imagination, which makes possible the fusion of the worlds or of the possible and actual. Imagination means the power of invention and of the creation of forms and persons, and it liberates art from the rationality of things and events, from the rationality of instrumentality and usefulness. It opens up the perspective of the mind to unfamiliarity and strangeness, to absence and to what was and may never actually be. If intuition and imagination are the two principal sources of artistic inspiration and creation, then it is evident that these human faculties have a referential and contextual character. For this reason, it is not easy for somebody brought in a particular cultural milieu to understand and absorb the artistic symbolism and creativity of artists belonging to another cultural orbit. If somebody never became familiar with the endless deserts of the Middle East or Africa and never heard the appeals of the muezzin when the sun rises or disappears from the horizon, will never appreciate Arab music like the people whose

[17] "Social institutions can be seen as constellation of rules, resources and relations which are situated within, and at the same time create, fields of interaction. When a specific institution is set up, it gives shape to pre-existing fields of interaction, and at the same time it creates a new set of [spatial] positions and possible [individual life] trajectories..." Thompson, John 1990, 149.

[18] "A poem, a painting, and a piano sonata may literally or metaphorically exemplify some of the same features; and any of these works may thus have effects transcending its own medium... They all interpenetrate in making a world." Goodman 1985, 106. Or, as Heraclitus said, "that which is in composition is in concert, and from things that differ comes the most beautiful harmony; harmony consists of opposing tension, like that of the bow and the lyre." Fragment 8 in the Diehls edition. Quoted in Cassirer 1955, 2: 135.

entire existence was linked to these regions. If somebody does not penetrate in the magical and historical world of the peoples of Africa, he will not be able to enjoy their different artistic creations, especially the beautiful statues made by their craftsmen.

Symbolism, as Cassirer stated it, makes possible relational thought, that is, *abstract* or *generalized* types of thinking (Cassirer 1946, 36). This is easy to demonstrate if one thinks of the human capacity to, first, isolate relations and develop an abstract meaning for them through appropriate symbolism and, second, to grasp with the help of abstract symbols not isolated relations only, as Cassirer suggested, but exactly their opposite, the integrated relational contexts, whole ensembles, which the human mind could not visualize without having recourse to abstract symbols reducing the complexity of these ensembles. In this respect, it is at least partially correct to say, with Cassirer, "human knowledge is by its very nature symbolic knowledge" (ibid., 56). Language and science depend upon abstraction, and thereby impoverish reality. In art or mythical world conceptions, symbolic meaning must therefore be given precedence over considerations of historical development. Luhmann's conception of meaning, closely related to negativity and valid also for symbolic meanings, explains as well human generalizing/abstracting capacities. Negation and symbolism are instrumental in focusing attention on one particular entity, thing, event or idea, which means the wholesale bracketing out and simultaneous preservation of what is not attended to; without this preservation of other possibilities, which Luhmann's description of negation expressly includes, reflexive generalization and abstraction would not be practicable (Luhmann 1990, 28-29). Luhmann summarizes in what follows his thinking on reflexivity in negation from the point of view of generalization as follows: "It achieves both the *reduction and preservation of complexity* by filling immediately given, evident experience with *references to other possibilities* and with a *reflexive and generalizing potential*, thus equipping it for *risk-laden selectivity*" (ibid., 29; italics in original).

As the arguments concerning symbolism of Boyd and Richerson demonstrate it, symbolism is a phenomenon which can be explained in evolutionary terms only with considerable difficulty, if an autonomous cultural development, that is, independent from the physical/biological framework of thought is not posited (Boyd, and Richerson 1985, 273-274). With much hesitation, – attributing first symbolic variances to random variations, evolutionary drift, or some kind of frequency dependence, – they formulate a weak interaction hypothesis to explain the strenuous relationships between symbolic contents or meanings, and adaptation through natural selection (ibid., 274). They find the main adaptive functions of symbolism in facilitating interpersonal communication as well as the organization of memory, which together enhance social learning, and the cultural transmission of accumulated adaptive advantages.

4. Myth and Ritual

Myth, in Heidegger's explanation stands for laying bare, disclosing: "The *mythos* is that appeal of foremost and radical concern to all human beings which makes man think of what appears, what is in being" (Heidegger, 1968, 9-10). Heidegger even affirms that *mythos* and *logos* (word or reason) meant the same at the beginning of Greek philosophical thought. Their meanings were reinterpreted later at the time of Plato. Modern rationalism, then, pretended that *logos* not only replaced *mythos* but also destroyed it (ibid.).

Myth, in modernity, fell victim to Enlightenment rationalism, and was forever relegated into primitive thinking and cultures, into the prelogical domains of irrationalism, mysticism, illusions and dreams.[19] It is regrettable that because myth is considered as characteristic of primitive cultures, its concept is constantly collapsed with religion in general. However, not only some anthropologists, but also some philosophers like Cassirer, saw very clearly that myth is a product of a totally different conceptual structure of thinking, – a sacramental natural ontology in Diana Eck's description, or an identity of action and thought for Luc de

[19] "The weaknesses of the traditional mythologies seems to me to be that they severe the connection between, on the one hand, the documentable history of the individual myths and, on the other hand, their originl state, prior to all history - and they do this because, on grounds derived from a philosophy of history, these theories have assigned myth so definitely to an 'epoch' that everything after that can only be a specialty of the histories of literature and art." Blumenberg 1985, 66-67.

Heusch.[20] Proper understanding of the myth's perceptual basis, of the inferences which were drawn from it and of the corresponding view of the world, that is, of the total mythical experience, make possible for us to grasp the importance of myths in certain particular cultures. This, of course, necessitates the abandonment of intellectualism in our Western sense, of our habit to measure everything in accordance with logical rules and in purely cognitive terms, and to accept the holism of mythical worldviews. Cassirer writes that in the primitive man's conception of nature and life

> All these differences [of empirical things] are obliterated by a stronger feeling: the deep conviction of a fundamental and indelible *solidarity of life* that bridges over the multiplicity and variety of its single forms. He does not ascribe to himself a unique and privileged place in the scale of nature. The consanguinity of all forms of life seems to be a general presupposition of mythical thought (Cassirer 1944, 81-82; italics in original).[21]

What this means is that in the mythical view different spaces and different temporal perspectives are merged in a mythical space and a mythical time[22] (which always remains cosmic space and cosmic time), precisely because in myth there is no difference between essence and appearance, there is no representation, everything is a genuine presence. Things are incarnations of what they express and are linked to each other by specific genealogies. In the mythical universe, things stand in a meaningful relation to each other. Therefore, myths are not answers to questions, they render questioning by men impossible. Mythical consciousness is consciousness of a mythical reality, of a mythical world, even if it is not a positing consciousness. As such, mythical consciousness is not objectifying, not reifying, because being mythical excludes such conceptual approaches. It is integrating, though even specifying and classifying, individual elements and, above all, it is contextual:

> Myth is a way of expressing the fact that the world and the powers that hold sway in it are not abandoned to pure arbitrariness. However this may be signified, whether by a separation of powers or through a codification of competences or through a 'legalization' of relationships, it is a system of elimination of arbitrariness. (Blumenberg 1985, 42-43).

Accordingly, one cannot say that in mythical thought there is no logic, but one has to recognize that myths expresses a specific logic and a particular human reasoning pattern. *Myth, mythical thought, then, is one of the possible forms of the transcendence of man*. It is also true, as Schopenhauer remarks, that myths themselves never become transcendent, and for that reason they disappeared when times and historical circumstances change.

Myth as a form of transcendence is not only a phenomenon limited to the so-called primitive man and primitive culture, it is a phenomenon in everyday life in all ages – because man's nature contains a fundamental need to explain the world as a whole, in its totality.[23] Holistic explanation relates to a world in

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[20] Heusch believes that symbolic thought "endeavors to express in terms of human history the contradictions of the society and the world" and he believes that "ritual facts, far from abolishing thought, belong to implicit and explicit codes, that action and thought form one and the same systems." Heusch, Luc de. "Heat, Physiology, and Cosmogony: *Rites de Passage* Among the Tonga." In Karp, and Bird. eds. 1987, 27-29.

[21] Linking symbolism to mythical religions, Cassirer affirms that in mythical thought "the name of a god is an integral part of the nature of the god" and he concludes that in symbolic actions like a religious rite, a sacrifice, the invariability of the ways in which they have to be performed refers the immutability of things in the mythical view of the world. Cassirer 1944, 37.

[22] Leszek Kolakowski, with reference to Mircea Eliade, showed that "mythical realities are themselves distinguishable by the fact that whatever occurs in them is excluded from the real flow of historical time. It is not something that had occurred in a moment located in our calendars, but something that occurs always in the same primal authenticity, always the same as on the first occasion." Kolakowski 1989, 48.

[23] Kolakowski's definition of myth shows the very difference between the myths in other cultures and ages and the myths dominating in our era, though it does not entirely correspond to my understanding of modern myths: "I call 'mythical' every conviction which not only transcends finite experience in the sense that it does not describe it (since every

which continuity is assured by the intertwining relationships in the whole, in which man's intentional, free choices can play a role if they are in accordance with, and inserted onto, the given world order. This world order is shaped by values placed above all contingencies of our existence. The human urge to possess such a holistic explanation of the world is the source of myth-creation. However, modern mythical attitude is as flexible as in past ages; as Evans-Pritchard already made it clear, people can switch between mythical and everyday behavior without any difficulty – and we frequently see signs of such switches and transpositions in our days.

Today's myths are, among others (because there are innumerable myths around us), the scientific myth, the myth of progress, the myth of a powerful, all-dominating human reason, and the myth of equality, the myth of the possibility of a peaceful world forever, etc. I believe that the scientific myth, together with the myth of all-powerful reason, probably is the founding myth of all other modern myths. The scientific myth offers a totalizing world picture[24] in which everything is explained in ideological terms (I call scientific myth an ideology because science, like many other ideologies, claims to explicit and solve existential questions). Finally, this myth sustains the belief of many of our contemporaries that through knowledge humanity may transcend its worldly existence. However, it is true for science, too, what Blumenberg said about myths in general: "The concept of reality as momentary evidence includes disparate modes of certainty" (Blumenberg 1985, 236). For this reason, the scientific myth starts to crack from all parts, especially in view of the menacing ecological disaster, the demographic explosion, or the constant danger of a nuclear confrontation – all not foreseen by scientific and technological expertise, embedded in the disparate modes of certainty and, let's add to it, the consecutive and inevitable uncertainties and risks.

Myths, ancient and religious, or modern as the scientific myth, always need to follow certain determinate procedures in given circumstances. These are the rituals of whatever – mythical, religious, scientific, or everyday – origins, though most people identify rituals with religious ceremonies.[25] I believe that it is important to pay attention, on the social plane, to the effect of rituals through which they strengthen and express group or social solidarity (Alexander 1990, 18). Tambiah's definition of rituals is the most comprehensive:

> Rituals tend to take a certain form wherever and whenever they occur in human societies...Ritual is a culturally constructed system of symbolic communication. It is constituted of patterned and ordered sequences of words and acts, often expressed in multiple media, whose content and arrangements are characterized in varying degree by formality (conventionality), stereotypy (rigidity), condensation (fusion), and redundancy (repetition)... Its cultural content is grounded in particular cosmological or ideological constructs (Tambiah 1985, 125 and 128-129).

Thus, ritual is a social action whatever its purpose. Being a conventionalized action, it "psychically *distances* the participants from the ritual enactment" (ibid., 133; italics in original). Ritual, therefore, is also a form of transcendence of the being-in-the-world that we are. Going one step further with Tambiah, one can also say that through the transcendental character of ritual, the ritual act becomes a performative act, – an expression of social commitment conveying and asserting, at the same time, a shared meaning, a belief, a conviction which are beyond the cognitive domain, which, in the sense of the foregoing, inspires and invokes

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hypothesis in this sense steps beyond experience) but also in the sense that it relativizes every possible experience, referring it to realities whose verbal description cannot in principle be tied logically with verbal descriptions of experience. In other words, the realities of the mythical order can explain nothing about the realities of experience, nor, even less, be derivable from them. They are also nonoperative: they do not enable us to predict or explain anything." ibid., 26.

[24] Science in Blumenberg's sense is a fundamental myth which "will have to be assessed in terms of the scope of its accomplishment: being radical, it becomes capable of being total. But that only means that it carries with it the suggestion that owing to it and in it nothing is left unsaid. What is not said is a different category from what is not asked. What totality means here is something that we know at all since it was renounced, and had to be renounced, so that we could have scientific knowledge." Blumenberg 1985, 175.

[25] I prefer to distinguish, with Durkheim, between rituals and rites. Rites are different from rituals in that they represent "rules of conduct which prescribe how a man should comport himself in the presence of the sacred objects" (Durkheim, Emile, The Elementary Forms of the Religious Life. New York, Free Press, 1965, 56), whether the sacred objects are gods or emperors.

moral commitment to act.[26] Rituals assume a more important role in times of existential and cultural uncertainties. As a consequence, their urgency is more marked during historical periods when societal risk and unpredictable future are dominating human consciousness. Wuthnow also emphasizes that ritual

> Regulates and defines social relations. It may do so by sharpening the boundaries between two social statuses governed by different relations and expectations (rites of passage),[27] or by reminding people of the relations they share and the principles underlying these relations (collective ceremonies), or by simply sending signals concerning the definition of positions and relations in ongoing social activities (etiquette, protocol, etc.) (Wuthnow 1987, 107).

Among rituals in a mythical age, magic represents the form of practice, which permits man to try to intervene in the cosmic (as against historical) processes in his own favor, and, at the same time, to manifest not only self-confidence but also an affirmation of its self as well through participation in communal action. Participation in mythical, cosmic events through ritual and magic meant that humans felt an identity or consubstantiality between persons and things in a holistic way. Magic demonstrates its own rationality as explained by Evans-Pritchard,[28] and through it "man imposes meaning on the world, anticipates the future, retrospectively 'rationalizes' the past, and affects the results" (Tambiah 1985, 84). Blumenberg made it clear that *remythicization* can most easily take place when human, historical time disappeared from the consciousness of men, when the lifeworld is no more motivated by the double arrow of temporal perspective: "It is easier to project mythical turning points into empty space" (Blumenberg 1985, 99).[29] In contrast, the dogmatic mode of mythical thought, including contemporary scientific thought, framed in a temporal perspective turned towards the future, cannot avoid to insist on the irrelevance of time, on the one hand, but must simultaneously recognize the articulation and determinateness of time, on the other hand.

For the dominant contemporary myth, the scientific one, the ritual (phenomenologically corresponding to magic) is, first, the constant re-affirmation of the power of scientific method, and second, the consecutive proclamation of science's omnipotence and overall explanatory force, and its being the engine of social progress. The scientific method – empiricism, the trial-and-error procedure, the inductive or deductive approaches, etc. – are, of course, undeniably useful. It is evident that, for example, the trial-and-error procedure is one of the most elementary devices in human life since the beginnings of history. As any problem-solving approach, scientific method has also to be based on presuppositions or axioms which, especially in human matters, cannot be considered as unchangeable because they are as everything else embedded in the context of an epoch, of a culture, of a certain point of view. Consequently, scientific methods, as much as any other intellectual or practical endeavor, are evolving but not always in the direction of convergence with past, or contemporary and different approaches and methodologies. What gives the scientific method a sort of magical character is that scientific axioms or presuppositions as well as certain methodologies are considered as valid for all people, all worlds and at all times.[30] The principle of objectivity

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[26] "Moral ritual not only dramatizes a connection between a symbolic event and collective values; it also creates an opportunity for the individual to exercise moral responsibility in relation to other values." Wuthnow 1987, 140.

[27] On rites of passage see Van Gennep, Arnold. *The Rites of Passage*. Chicago: University Press of Chicago, 1909, and for a contradictory point of view, see Kopytoff, Igor, "Revitalization and the Genesis of Cults in Pragmatic Religion: The Kita Rite of Passage Among the Sukas." In Karp, and Bird. eds. 1987, 183-212.

[28] Evans-Pritchard pointed out that the Zande belief in witchcraft reflected an empirical knowledge of cause and effect, but its main objective was to intervene in social matters: "In every case the witchcraft is the socially relevant cause, since it is the only one which allows intervention and determines social behaviour." Evans-Pritchard, E.E. *Witchcraft, Oracles and Magic Among the Azande*. Oxford: Clarendon Press, 1937, 73.

[29] "It is true that a sense of history is not yet a resolve to bring about a particular future; but there is simply no other way of gaining sensitivity to a future than thorugh insight into the uniqueness and irretrievability of what is past... The mythical mode of thought works towards evidentness in the articulation of time; it is able to do this because no one ever asks for its chronology." Blumenberg 1985, 99-100.

[30] As Heisenberg declared a long time ago: "Only the extension of scientific methods of thought far beyond their legitimate limits of application led to the much deplored division in the world of ideas between the field of sciences on the one side and the fields of religion and art on the other. Exact science, convinced of the general validity and applicability of scientific principles, interfered in other spheres of intellectual life and thus threatened its own status. Since, however,

is as good an example of this self-assurance of science as any other basic tenet of the scientific belief – though even in science itself, through developments in nuclear physics, it was proven to be impossible to respect it. Because of science's and technology's undeniable theoretical and practical successes, the belief became rooted in people's mind that science is omnipotent and will bring unlimited happiness in this earthly life – until recent times when in view of the menacing ecological disasters or the never-imagined demographic explosion jeopardizing humanity's future, this belief was fundamentally shaken.

5. Language-Creation and Language-Use

Language, as the most important and most visible form of human transcendence – born out of the mind's symbolic structure and man's irrepressible need to belong to a community[31] – is the means of communication between human beings. It expresses human thoughts, feelings, beliefs, values, and states of mind and is also the principal instrument to reach understanding in a dialogue with others. The capacity to create and speak languages is a biological function in human beings. Mead, whose theory of social origins of language influenced many thinkers of our century, derived language formation from the use of gestures between individuals and the consecutive adjustment and mutual adaptation of their behavior. Gestures, in his perception, became in conscious conversation signs, and these signs stood for symbolic meanings and significations leading to mutual understanding of each other's intentions. In this sense, he considered that all symbols in human existence are universal (Mead 1934-38, 1: 47-48, 69, note 7, and 146). The ontological foundation of human languages, the fundamental mode of operation of our being-in-the-world is, thus, the ability to communicate.

Language, as *logos*, presupposes consciousness. However, language can only be partially examined reflectively as the analysis has to be conducted in linguistic terms:

> In all our knowledge of ourselves and in all knowledge of the world, we are always already encompassed by the language that is our own. We grow up, and we become acquainted with men and in the last analysis with ourselves when we learn to speak. Learning to speak does not mean learning to use a preexistent tool for designating a world already somehow familiar to us: it means acquiring a familiarity and an acquaintance with the world itself and how it confronts us (Gadamer 1976, 62-63).

Hearing, listening and keeping silent are as much part of communicative exchanges as linguistic abilities, because "only when what is not said is understood along with that what is said is an assertion understandable" (ibid., 67). All languages are the products of a specific cultural context. This means that they mirror beliefs, values, feelings, identities and moral convictions shared by a given community. It is nonetheless true that in the course of language creation these features of a given culture are shaped as well by individuals and communities; thus, there is an interdependence and continuous interaction between languages and the culture's characteristic features they express (Whorf 1962, 252 and Mead 1934-38, 1: 54-55).[32] This is the reason why natural languages, distinguished from artificial languages like those of scientific disciplines, are ontologically embedded in human existence.[33]

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its power was insufficient to give full expression to these other fields, almost impassable frontiers arose, in self-defence, between them and science." Heisenberg 1979, 22-23.

[31] Ferdinand de Saussure wrote that "language is not complete in any speaker; it exists perfectly only within a collectivity." Saussure, Ferdinand. *Signs and Language*. Excerpts from *Course in General Linguistics*. New York: McGraw-Hill, 1964, 9-17 and 65-76.

[32] Gadamer stated this relation between language and culture with reference to Wilhelm von Humboldt who lived some one hundred and fifty years ago: "If every language represents a view of the world, it is primarily not as a particular type of language (in the way that philologists see it), but because what is said or handed down in this language. The way in which the problem is shifted, – or, rather, comes into the right focus – when the unity between language and tradition is recognized can be illustrated by an example. Wilhelm von Humboldt once remarked that to learn a foreign language involves the acquisition of a new standpoint in regard to the view of the world one had hitherto held, and went on: 'Only

The Gadamerian concept of the fusion of horizons, the proper means of understanding between speakers of different languages, is based on common cultural features characterizing various languages and discourses. This understanding is a dialogic understanding, result of the communicative process between humans. But the dialogic way of communication to arrive at an understanding concerns as well people who speak the same language but have different intellectual and spiritual interests, because language is the sustaining medium of all intellectual and spiritual activities and therefore makes possible communication among philosophers, artists, theologians, etc.[34]

In addition to being the privileged means of conversation and understanding, language is also a liberating force in human existence. It enabled men to cooperate and, through this cooperation, to acquire freedom from environmental constraints like his habitat. This aspect of language – that environmental givens interact in it with biological evolution – explains the historical multiplicity of human speech in relation to the one world. *Human languages reflect human diversities*. At the same time, they are closely linked to human finitude because they share changing human destinies, evolving constantly in accordance with the fluctuations of human existence. In this perspective, man and language are identical from the ontological point of view:

> The linguistic quality of our experience of the world is prior, as contrasted with everything that is recognized and addressed as being. The fundamental relation of language and world does not, then, mean that the world becomes the object of language. Rather, the object of knowledge and statements is already enclosed within the world horizon of language (Gadamer 1985, 408).

This view of Gadamer concurs with the Wittgensteinian vision of language: not only with the statement that "the limits of my language mean the limits of my world" but with the view that different languages not only mean different interpretations of the world, they mean the integration of reality into different forms of life (Wittgenstein 1953, #241).

One of the main functions of language for man as being-in-the-world, so frequently emphasized by the late Karl Popper, is its descriptive function in opposition to such practices as name giving. Nevertheless, it has to be recognized with Cassirer that the descriptive function comprises a very strong classificatory element on which depends the very act of description or designation.[35] Of descriptive statements one can say whether they correspond to the reality of the world or not, and they can therefore be judged to be true or false. Falseness does not obligatorily imply an intentional act, but may be due to circumstantial reasons, for example, story telling. Truth or falsity depends also on what is the referent in a designation (which is unavoidable in descriptions). It can only be judged whether a designation is true or false if one takes into account all interconnected relations in the world as well as the fact that different descriptions of designated entities are always possible. These interconnected relations make validation of descriptive sentences

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because we always carry over, whether more or less totally, our own view of the world, even our own view of language, into a foreign language, is this achievement not experienced in a pure and perfect way'. /*Über die Verschiedenheit des menschlichen Sprachbaus*. 1836/." Gadamer 1985, 399.

[33] Heisenberg explains this difference between natural and scientific languages: "The concepts of natural language are formed by the immediate connection with reality; they represent reality. It is true that they are not very well defined and may therefore also undergo changes in the course of the centuries, just as reality itself did, but they never loose the immediate connection with reality. On the other hand, the scientific concepts are idealizations; they are derived from experience obtained by refined experimental tools, and are precisely refined through axioms and definitions. Only through these precise definitions is it possible to connect the concepts with a mathematical scheme and to derive mathematically the inifinite variety of possible phenomena in this field. But through this process of idealization and precise definition the immediate connection with reality is lost." Heisenberg 1958, 200.

[34] "According to their own being, therefore, art and history elude interpretation in terms of the subjectivity of consciousness. They belong to the hermeneutical universe that is characterized by the mode of operation and the reality of language that transcends all individual consciousness. The mediation of finite and infinite that is appropriate to us as finite beings lies in language – in the linguistic character of our experience of the world." Gadamer 1976, 80.

[35] Name-giving was very important in the Chinese civilization because by name-giving categorization, concept-formation and function-definition was understood. Therefore, the great Confucian principle of the "rectification of names" aimed at making designations more realistic.

possible;[36] the descriptive function of language therefore necessitates an argumentative function, which finally leads to a critical attitude towards linguistic statements. This must be so because it cannot be determined *a priori* which senses, which designations are appropriate to a particular reality, the referent (Lyotard 1988, 47).

In view of the multiplicity of languages and the need to communicate, to have a conversation between speakers of different languages, questions of translation and interpretation become overwhelming. The main issue is what constitutes the best evidence that in terms of both interlocutors' beliefs and intended meanings the translation or interpretation is adequate? The solution of Davidson, with reference to linguistic holism and the cultural roots of language-formation, is to take behavior patterns and dispositional facts, which do not need interpretation as vectors of meaning and belief (Davidson 1984, 141-154). There will still be a semantic indeterminacy in the interpretation, a counterpart of the Quinean indeterminacy of translation,[37] because several possibilities of interpreting the behavior patterns and dispositional facts remain. As a consequence, Quine recommends to adopting pragmatic standards:

> It is meaningless, I suggests, to inquire into the absolute correctness of a conceptual scheme as a mirror of reality. Our standard for appraising basic changes of conceptual schemes must be, not a realistic standard of correspondence to reality, but a pragmatic standard. Concepts are language, and the purpose of concepts and of language is efficacy in communication and in prediction (Quine 1980, 79).

However, as Tambiah wrote (Tambiah 1990, 125), a certain measure of comparability between languages and the worldviews they reflect, requires also a certain measure of commensurability, even if we accept Quine's practical standard.

[36] According to the Saussurean semiotic theory, the meaning of signs could be established through explaining the signified, or referent, by its relations to the signifier. The problem becomes complicated when there is an abundance of signifiers in relation to the signifed, or vice versa, – as it happens in our modern times.

[37] Quine's description of linguistic differences justifying radical translation affirms that "when two systems of analytical hypotheses fit the totality of verbal dispositions to perfection and yet conflict in their translation of certain sentences, the conflict is precisely a conflict of parts seen without the wholes. The principle of indeterminacy of translation requires notice just because translation proceeds little by little and sentences are thought of as conveying meanings severally. That it requires notice is plainly illustrated by the almost universal belief that the objective references of terms in radically different languages can be objectively compared." Quine 1983, 78-79.

CHAPTER SEVEN

TRANSCENDENCE AND CULTURE – Part Two

1. Patterns of Reasoning, or Rationality

Reasons are grounds or explanatory motives for beliefs, forms of behavior and modes of action. Patterns of reasoning is therefore a preferable designation to rationality when speaking of this particular form of human transcendence, a unique quality of man, because: first, reason, implying self-consciousness, is a directive orientation of intentionality for man's attitude to the world and his action in it. Second, patterns of reasoning refer to practical reasons as virtual causes of why one thinks, believes, or does something, establishing a different sort of relation than the usual cause-effect structure in logical thinking, and recognizing a connection of structural relations between possible choices and actions. Third, patterns of reasoning evoke explicitly the possibility of several types of reasons and non-reasons (or reasons against believing or doing something), indicating that the concept of rationality cannot be conceived in a unique formulation having absolute validity in all places and all times.[1] Thus, beside the formal causality concept of logics and the natural sciences, a causality shaped by reasoning patterns must be recognized as constituting the relational structure of human thinking and action, – a form of causality which is not present in the physical universe.[2] In addition, as patterns of reasoning vary in different places and in different ages, or in different cultures, the rationality what one could call *meaningful rationality* is contextual[3] and therefore relevant but eventually bounded,[4] without the pretension of being universally prevalent[5] (comparable to multiple

[1] Dudley Shapere, when explaining the difference between present scientific reasoning and that of other ages, calls attention to another "important sense of 'rationality' according to which people in the past could be justified in believing what they did even though later they turned out to be wrong, when new information became available that they didn't have. (Actually there is only one sense of 'rationality' involved, according to which, very roughly, one is rational if one bases one's judgements on the best-founded beliefs available)." Shapere 1984, 254.

[2] Alan Ryan's analysis of social action brings out well the differences between reasoning and causality. Causality in theoretical explanation means an "ontological commitment to the existence of typical patterns of causal sequence as empirical properties" and therefore causality and having reasons differ because "reasons can be assessed as good and bad, proper and improper, whereas a proffered cause either is or is not the cause of whatever we are explaining... [In addition] a person who makes a decision is not engaged into a causal inquiry into his own motives," reflecting an asymmetry between first-person behavior and observer knowledge. Ryan 1970, 114 and 117-118.

[3] The contextuality of rationality was recently acknowledged by Nozick: "Not only is belief tied to context, so is rationality. To term something rational is to make an *evaluation*; its reasons are *good* ones (of a certain sort), and it meets the standards (of a certain sort) that it *should* meet. These standards, we have said, may vary from area to area, context to context time to time. We therefore should be careful in concluding that someone is being irrational simply because his reasons do not meet the most stringent standards we can formulate. They may meet the standards appropriate to their context, the standards the most stringent theory would recommend here," Nozick 1993, 98; italics in original. One can, however, ask that if rationality is contextual on what basis these so-called most stirngent standards would be established?

[4] Herbert Simon gives the following definition of bounded rationality: "Within the behavioral model of bounded rationality, one doesn't have to make choices that are infinitely deep in time, that encompass the whole range of human values, and in which each problem is interconnected with all the other problems in the world. In actual fact, the environment in which

causality). If this is relativism, so be it. Nevertheless, I believe that even if one considers this position relativistic, it represents only a weak relativism because, on the one hand, the same genetic and phenotypic features are underlying human nature on which patterns of reasoning are based; and, on the other hand, the existence of a common core of human cognitive and emotional traditions, as well as action- and behavioral patterns – the so-called cultural universals – represent an empirical reality.[6]

Since Antiquity, thinkers described and qualified the specific human quality of reasoning in very different ways. The only age in which man's rationality was identified with one specific and exclusive rationality is the modern era begun, in the seventeenth century. To start with Aristotle, he recognized that reason can take a twofold form: theoretical and practical, or *episteme* and *phronesis*. *Episteme* clearly concerned scientific investigations in which one grasps the essence of beings through universal and necessary truths derived, in logic, from first principles. It was, however, Aristotle's description of practical reason, which imprinted a lasting mark on the thinking of successive generations. He related practical reasoning to the ethical perspective of human existence, to the how of man's actions aware of his ethical ends and ontic interests. In consequence, he linked ethical action to consciousness, solidly anchored in the meaningfully concrete situation as well as to wisdom (*sophrosüné*) and to the traditions inherited from preceding generations. *Phronesis* clearly falls in what Herbert Simon designates as the intuitive model (Simon, Herbert, 1983, 23-29). In respect of other beings, *phronesis* goes in pair with *synesis*, or understanding the contextuality of the other's situation. In Aristotle's exposition of practical rationality one can discover a certain vicious circle so characteristic of much later thinking on the subject of rationality. In his so-called practical syllogism, the individual, per definition a rational agent, determines his ends and the best possible action to reach them. At the same time, however, rationality is defined in terms of ethical standards, so a rational agent must obligatorily be somebody who prefers ethical action. Consequently, practical rationality and action are always ethical. The famous Hegelian dictum, "the rational is the real and the real is the rational," shows that modern man is not so far from the Aristotelian conception of practical rationality. The Hegelian formula, though, excludes the ethical perspective and imposes the predominance of empirical reality, or what we think to be reality. It is also far away from the Kantian concept of reason as reason, for Kant, is the most potent force in man's life, unifying all its aspects and all its particularities, and expresses well what we called the integrating power of the mind, or what was described by Putnam in the following way: "The unity of consciousness is consequently the consciousness of unity of everything that can appear in it" (Putnam 1988, 332).

Max Weber's analysis of rationality expresses all the different tendencies of modern thinking on human rationality, though it must be said that the Weberian rationality concept is inherently limited because it only relates rationality to action, individual or societal. This feature, however, is important in that it exposes immediately one of the weaknesses of the rationality concept as opposed to the patterns of reasoning concept. It cannot be discussed as such but as something always linked to phenomena like social action (Weber, Parsons, Luhmann) or another form of action, the epistemic investigation (natural science). In contradistinction to such concepts of rationality, the concept of patterns of reasoning is a *sui generis* concept in the sense that it can be analyzed in a cultural context, as a characteristic of man's way of thinking in given circumstances in which it evolved during a certain period of time. It can then be applied to explain man's beliefs, values, and actions with reference to the specific culture and age in which the pattern referred to

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we live, in which all creatures live, is an environment that is nearly factorable into separate problems." Simon, Herbert 1983, 19.

[5] Hacking's concept of styles of reasoning is basically different from patterns of reasoning which reflect a strongly relativistic bent. Styles of reasoning refer to a culturally-embedded way of thinking: "The existence of the style [of reasoning] arises from historical events... The rationality of a style of reasoning as a way of bearing on the truth of a class of propositions does not seem open for independent criticism, because the very sense of what can be established by that style depends upon that style itself... The very sense of the propositions for which we reason is determined by the styles of reasoning we use... The inability is not seeing what the other counts as true, but of grasping what possibilities are in question. We learn about that only through coming to share a style of reasoning, or many styles... Since styles of reasoning fit so loosely together we are well able to add the alien to our own, without giving up a thought." Hacking 1985, 155, 158, 159-160.

[6] Nozick emphasizes the importance of the socialization process: "The capacities that underlie believing or acting for reasons may have been the subject of natural selection (for whatever reason); but once these capacities existed, *society* might have seized the opportunity to produce (somewhat) rational members... People are not born rational. To whatever extent some rational processes *are* a product of innately controlled developmental patterns, these processes are shaped and overlain by socially instilled processes, norms, and procedures." Nozick 1993, 124-125; italics in original.

prevailed. Weber categorized various kinds of rationality into four types: the instrumental-rational, value-rational, affectual and traditional (Weber 1978, 1: 24-26). Instrumental rationality,[7] already mentioned as one of reason's function by Kant, is result-oriented, but ends, means and results must be rationally justified in Kantianism. In declaring this type the predominating form of rationality, Weber in fact acknowledged and legitimized the use of rationality in the sciences and, since the Enlightenment, in everyday life. The value-rational action pursues whatever ends for its own sake, without regard to its success. Affectual rationality obeys specific feelings and affective relations, whereas traditional rationality is really a misnomer in Weber's list because it stands for routine, also called by him ingrained habituation, or customary action, and does not really involve cultural tradition. This type of rationality, which may easily shade over into value rationality, is closely linked to meaningful action. Weber was skeptical concerning value rationality because he did not believe that any value choices could be rationally justified.

The most interesting thing about Weber's classification is that the instrumentally rational (or purposive-rational) on the one hand, and the value rational on the other hand, are intricately interwoven: "Choice between alternating and conflicting ends and results may well be determined in a value-rational manner. In that case, action is instrumentally rational only in respect to the choice of means" (ibid., 26). He recognizes, though, that an individual actor can subjectively establish a priority-ordering of ends in accordance with his desires and dispositions, that is, in accordance with his self-interest, "the actor may, instead of deciding between alternative and conflicting ends in terms of a rational orientation to a system of values, simply take them as given subjective wants and arrange them in a scale of consciously assessed relative urgency" (ibid.). In this case, instrumental rationality becomes an arbitrarily pursued action without any reference to whatever standards, and rationality cannot but mean the calculative behavior leading to the realization of the subjective ends of one, and only one, actor. This is a value-free, technologically motivated means-ends procedure. Instrumental rationality can be formal, with regard to the technically possible calculability, reliable reproducibility, and actual applicability of a rational process. However, that it was rational to act as an agent, taking into account his presupposed aims and beliefs, only the substantive-purposive content of the rational action could demonstrate.

Another Weberian move concerning rationality became even more widely accepted than instrumental rationality serving, exclusively, the individual actor's self-interest: the belief that human history and civilization follow an evolutionary process from the primitive, mythical state, characterized by religion and ritual, toward a state in which exclusively instrumental rationality, in the form of scientific rationality, dominates. Such a process is visualized as tending towards more and more complexity with the systematic re-organization of belief- and value-systems, and giving more precision to meanings, motives of thought, or concepts. This process is called rationalization which through the systematic re-ordering of worldviews and through establishing the inner logics of particular value spheres, produces the culture of disenchantment, reflecting the differentiation of the normatively valid from the empirically given. The whole theory of rationalization reflects Weber's conviction that the modern trend of evolution of society is irreversible, though he expressed many doubts about its benefits for humanity (Weber 1978, 2: 1156).[8] The Weberian link between rationalization and the reign of instrumental reason consists in the former being the result of the total domination of the latter whether it refers to the instrumentalization of reason in favor of individuals' self-interest, or in favor of the interests and domination of collectivities (groups, classes, or the state bureaucracy), or in favor of world mastery over the cosmos through the progress of scientific rationality.

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[7] Weber defines instrumentally rational action as "determined by expectations as to the behavior of objects in the environment and of other human beings; these expectations are used as 'conditions' or 'means' for the attainment of the actor's own rationally pursued and calculated ends." Weber 1978, 1: 24.

[8] Schluchter comments on Weber's ambiguous standpoint on Western rationalism: "*Modern* Western culture is a *special* interpretation of civilization. The reconstruction of history from the perspective of the origin, development, and consequences of rationalism of world mastery is a special one, which cannot simply be sacrificed to other criteria... For Weber the rise of modern Western rationalism seems to indicate a basic change of consciousness, hence a *development* of consciousness, which is paralleled by a development of a world view... Some Western innovations have a good chance of diffusing into other cultural traditions by virtue of power politics, inter-civilizational contacts or merely because every social order that wants to survive must utilize the adaptive capacities of modern Western rationalism. But this does not mean that modern Western culture can negate all other cultural configurations." Schluchter 1981, 22-23; italics in original.

Weber's conceptualization of instrumental-purposive rationality with respect to individual needs, desires, and ends, became generalized, especially because it conveniently also covered the concept of scientific rationality. Scientific rationality is, in fact, a procedural, problem-solving rationality, because the *modus operandi* of inquiry guarantees the correctness of results. ("Rationality is a predicate of means, not ends, and it is totally conflated with efficiency," Putnam 1981, 68).[9] In addition, it is realistic in the sense that it strives to reach the truth defined as correspondence to the reality of the world (for Ryle, to be rational is to be able to recognize truths and the connections between them). This last requirement necessitates that results obtained by the application of scientific rationality should be closely correlated with all aspects of other scientific investigations, and thus fit into the prevalent, constantly and gradually reformulated scientific world picture.[10] To realize this requirement scientific rationality must have recourse to an abstract methodology in order to make possible widely sweeping generalizations, therefore the world used by Dreyfus *deworlding* (Dreyfus, Hubert, 1991, 207). As scientific rationality and its successful applications have to be relevant in the sense of an internal coherence within the scientific context, "such clarification of what *counts* as a reason constitutes at the same time a clarification of the *concept* of '(a) reason' itself" (Shapere 1984, 407, note 6; emphasis in original). Taking into account the character of the rationality of science as described above, it is imperative that this rationality should have *universal validity*.[11] Principles of scientific rationality are believed to be *trans-temporal* and *trans-cultural* and, therefore, also *trans-subjective*, because it appears evident that in all cultures where critical thinking is alive and critical discussion is regularly conducted, the same principles are applied in the investigation of problems in respect of the natural and human worlds. This has to be so because the problems are, from the empirical and logical points of view, the same everywhere. It is, however, sometimes recognized that not taking into consideration time-specific and culture-specific parameters may lead to unjust rejection of certain scientific achievements qualifying them as irrational.

The universality or contextuality dilemma in respect of rationality raises the problem of *a priori* ideas and concepts.[12] If there are such *a priori* contents in our thinking and reasoning patterns, they may be universal, or they may be contextual, depending on how we define such a qualification. The idea that such fundamental patterns are inherited from generations who lived much before us is affirmed as much by pragmatists like William James[13] as well as by contemporary evolutionary epistemologists like Campbell:

> Though we reject Kant's claims of a necessary *a priori* validity for the categories, we can in evolutionary perspective see the categories as highly edited, much tested presumptions, 'validated' only as scientific truth is validated, synthetic *a posteriori* from the point of view of species-history, synthetic and in several ways *a priori* (but

[9] Nozick also says that in the "instrumental conception, rationality consists in the effective and efficient achievement of goals, ends, and desires." And he quotes Bertrand Russell: "'Reason' has a perfectly clear and precise meaning. It signifies the choice of the right means to an end that you wish to achieve. It has nothing whatever to do with the choice of ends." Russell, Bertrand. *Human Society in Ethics and Politics*. London: Allen & Unwin, 1954, viii.

[10] This is why reasoning patterns of bygone centuries, such as some theories at the beginning of scientific thinking in the fifteenth and sixteenth centuries, for modern scientists are incomprehensible: "The trouble is not just that we think Paracelsus wrote falsely, but that we cannot attach truth or falsehood to a great many of his sentences. His style of reasoning is alien... Paracelsus' discourse is incommensurable with ours, because there is no way to match what he wanted to say against anything what we want to say... Hence I shall say that the contrast between ourselves and Paracelsus is *dissociation*. We do not strain a metaphor if we say that Paracelsus lived in a different world from ours... A conceptual scheme is a network of possibilities, whose linguistic formulation is a class of sentences up for grabs as true or false. Paracelsus viewed the world as a different network of possibilities, embedded in different styles of reasoning than ours, and that is why we are dissociated from him." Hacking 1983, 70-71; italics in original.

[11] Interestingly enough Mead, the protagonist of the social origins of all human cultural activities, conceives of universal reasoning patterns in an idealistic fashion: "Thinking takes place in terms of universals, and a universal is an entity that is distinguished from the object by means of which we think it... The thought transcends all the occurrences." Mead 1934-1938, 1: 88.

[12] On *a priori* concepts in the development of science see Heisenberg 1958, 90-92.

[13] "My thesis now is this," wrote James, "that our fundamental ways of thinking about things are discoveries of exceedingly remote ancestors, which have been able to preserve themselves throughout the experience of all subsequent time. They form one great stage of equilibrium in the human mind's development, the stage of *common sense*." James 1975, 83; italics in original.

not in terms of necessary validity) from the point of view of an individual organism (Campbell 1987a, 79; italics in original).

And beside Karl Popper, Campbell quotes a series of authors like Höffding, Baldwin, Wright or Lorenz, to support his assertion. The problem of *a priori* reasoning patterns inherited from preceding generations, is important because it is a function of traditions, which contain the accumulated human wisdom of bygone generations.

A specific form of contemporary rationality, since the linguistic turn in analytic philosophy, is the one called communicative rationality, of which the most important protagonist is Jürgen Habermas. This conception of rationality is also based on certain presuppositions as, for example, that of supposing that all dialogic communication's underlying aim is "to achieve the illocutionary goal of reaching an understanding" (Habermas 1984/1989, 1: 12). Communicative action is rational if the actor's or speaker's deeds and uttering satisfy the conditions necessary to the attainment of this aim of dialogic understanding. In consequence, communicative rationality is also, in this sense, an instrumental-purposive rationality, though it admits, to an extent, variations among dialogic partners due to different patterns of reasoning characteristic of the lifeworld: "We call a person rational who interprets the nature of his desires and feelings in the light of culturally established standards of value, but especially if he can adopt a reflective attitude to the very value standards through which desires and feelings are interpreted" (ibid., 19). This formulation is still concordant with the instrumental-purposive feature of reasonableness, because critical reflection on inherited, traditional values are mostly conducted in accordance with individual values and self-interests. It is as well a procedural rationality, realized in argumentative encounters, in accordance with criteria indicating direct or indirect redemption of claims "to propositional truth, normative rightness, subjective truthfulness, and aesthetic harmony" (Habermas 1987, 322).

Surprisingly, in connection with this concept of rationality we meet again the qualification meaningful when Habermas points out that "rational expressions have the character of meaningful actions, intelligible in their context, through which the actor relates to something in the objective world" (Habermas 1984/1989, 1: 13).[14] Perhaps, this meaningfulness signals the tension which, in the Habermasian conception, is characteristic of communicative rationality, the tension between the universal and the contextual: "The *transcendent* moment of universal validity bursts every provinciality asunder; the obligatory moment of accepted validity claims renders them carriers of a *context-bound* everyday practice" (Habermas 1987, 322; italics in original).

Ricoeur recognized as well that all thinking, all reasoning patterns are bound to a historical context. Our belonging to a community, to a culture, can never become objectified in a way that it could be possible to independently reflect on it. For him, this limitedness explains why we can have only a relative autonomy through distanciation of the reality in which we were born, why our knowledge cannot but be non-complete and non-totalizing as a result of the limited epistemological independence we can master (Ricoeur 1981, 243-245).

Reducing patterns of reasoning, or rationality in general, to instrumental-purposive rationality of which scientific rationality is the *par excellence* case, rationalism in Western culture engaged itself on the road of an oddly self-destructive direction. To divorce means from their commanding ends cannot but be destructive for the individual and the community. Making science and scientific rationality the only guide of practical action and so dominating a sphere in society as to orient almost exclusively individual and collective life, led to endangering the existence of our species.[15] As Shils wrote:

[14] The periodic emergence of the term "meaningful" is really striking in the discussion of rationality and clearly indicates the need to argue in favor of a non-procedural, non-instrumental concept of it.

[15] In respect of the various risks which menace humanity today see Beck 1992a and 1992b. All the works of Anthony Giddens published in and after 1984 (of which the first is *The Constitution of Society: Outline of the Theory of Structuration*) show his preoccupation with fate and risk in modernity. "Apocalypse has become banal," wrote Giddens in 1991, "a set of statistical risk parameters to everyone's existence." Giddens 1991, 183.

> The 'will to believe' in science is deep in our cultural inheritance. It derives not only from a utilitarian ethic, but also from beliefs in the intrinsic value of truth, in the merit of cognitive activity and in the necessary beneficial consequences of cognitive activity (Shils 1974, 4).[16]

Contemporary rationalism, in fact, is based on empirical truth, a utilitarian ethic, and a quasi-religious belief in the power of human reason and human cognitive capabilities in the field of science.[17] Whether this belief is rational, and as such justified in our contemporary circumstances that is another question. The answer really lies in the pattern of reasoning we have recourse to, a pattern that depends whether we accept or not all the presuppositions underlying the Enlightenment's intellectual revolution, and whether we – as conscious human beings possessing intentionality, autonomous reasoning and moral values – give up our freedom to serve forces created by our own intellect. We have to be clear about the fact that the dangerous and destructive manner in which rationalism and science became the dominant worldview in our society resulted from the fight led by the nascent natural sciences and the Enlightenment philosophers against religion and the Catholic Church which imposed their domination on human thinking and action since the Middle Ages. But the separation of faith and reason is accomplished since at least Kant, and we still carry on a war against some ghost in order to justify the excesses of our rationalism and of the domination of science.

As a consequence, instrumental-purposive rationalism and scientific thinking became an ideology, an all-embracing climate of public opinion, entertained by the media. It is an ideology which is self-serving if it does not serve particular – personal and collective – interests. Thus, we came to the point where we cannot liberate ourselves from the forceful grasp of this ideology:

> In the universe of modern western man, the rational is that which is valid within a given scope of knowledge; on the other hand, the valid is that which is rational within a given scope of knowledge. Thus the validity of knowledge is interlocked with rationality. One is defined through the other. Rationality is a framework on which knowledge is based but which itself is abstracted from this knowledge (Skolimovski 1974, 206-207).

This is not the rationality that serves human survival any more, the only valid justification of rationality. Reasoning patters were born when human transcendence – consciousness, intentionality, meaning-creation, symbolic representation and linguistic communication – became manifest in man's existence and cultural activities. Instrumental-purposive reasoning being one of such patterns, it was justified until it served the biological survival of the human species. Whence it became an entertaining exercise of human intelligence, without any guiding values, not only is it no more relevant and useful for the species, but it leads – in one way or another – to the latter's extinction.

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[16] Baumann pinpoints the extreme weakness and circularity of this cognitive process: "The allegedly unshakeable obviousness of objectivity is, in fact, constantly produced and reproduced by an intrinsically tautological process. The ontological premisses of empiricism derive their proof from commonsensical perceptions which deliver such proof only because they themselves have been trained for the purpose by the assumptions they are supposed to validate." Bauman 1978, 44.

[17] "Confidence in the scientific method and in rational thinking replaced all other safeguards of the human mind." Heisenberg 1958, 198. More recently, Hilbert Schenck wrote in a text reproduced in the volume on *Science and Culture*, edited by Gerard Holton: "I believe that a free-wheeling scientific culture, self-governed and uninformed by other external value-systems, is revealing an irresponsibility that was inevitable since the days of Galileo." Holten. ed. 1965, xxxi. Medawar's paradox of scientific methodology reflects well the difficulty of judging the activities of science: "If we assume that methodology is unsound, then so also will be our tests of its validity. If we assume it to be sound, then there is no point in submitting it to test, for the test could not invalidate it." Medawar, Peter. *The Art of the Soluble*. London: Penguin, 1967, 169.

2. Patterns of Reasoning, Truth and Reality

Replacing rationality by patterns of reasoning also leads to change the concept of truth which is, in both cases, closely related to reality. With respect to the instrumental-purposive rationality concept, truth is considered as correspondence with reality (the so-called copy theory of truth, or "mapping of concepts onto things" for Putnam), meaning that what is considered to be true exactly depicts or reflects the thing, relation or state of affairs in question. This truth concept, then, is conceived as linked to certain truth-conditions, which have to be satisfied in order that propositions or a statement should qualify as true.

This truth-concept, though still valid in the Newtonian world picture of physics, was however shaken, first, by the general relativity theory of Einstein and, second, by the indeterminacy principle in nuclear physics. The relativity theory thus affirmed that the simultaneity of a given distant event and one experienced by an observer is not a simple physical phenomenon, but depends on the relative position where such an event occurred and how it is connected to the observer's perception of it. If the distance of the event from the observer and the velocity of the signal relating it to the observer's perceptive act are being known, then the observer can correlate the distant event with some previous experience of his own as two events which happened simultaneously. Heisenberg's indeterminacy principle states that it is impossible to simultaneously measure the size and momentum of a nuclear particle. In fact, the intervention of an experimenter or observer modifies the conditions of nuclear interaction. It is easy to see the corrosive effect on the correspondence theory of truth of Einsteinian relativity, of the indeterminacy in nuclear physics, and of the discovery of the reality-transforming effect of an experimenter or observer's intervention in the processes of the cosmos.

The truth-concept corresponding to patterns of reasoning puts the emphasis not on the correspondence of truth with reality, not on truth-in-itself, but on the complete understanding and *bona fide* interpretation of what reality is, in accordance with the axioms and presuppositions underlying the patterns of reasoning in question. This truth-concept, which has to satisfy the relevant truth-conditions as well (also defined by the above mentioned axioms and presuppositions), does not aim at an epistemological comprehension, at obtaining a correct knowledge of reality. It is, therefore, not identical with Putnam's internal realistic perspective[18] (the rejection of the spectator's, or God's Eye point of view). Rather, it corresponds to Pierce's truth concept, which aims at fundamental understanding in the process of knowing.[19] *The truth-concept advocated here aims at understanding and interpreting what reality is, given the conditions – environmental, cultural, and other – which determine the being-in-the-world's situation as expressed by his patterns of reasoning*.[20] One could say, therefore, that this truth concept is first of all ontological – ontological from a

[18] Putnam's truth concept went through important modifications during time. On the one hand, he first refused to equate truth with rational acceptability because the former must be "independent of justification here and now, but not independent of *all* justification," whereas for the latter justification may be proved to be false. Putnam 1981, 54-56; italics in original. In one of his latest books, on the other hand, he expounded the thesis about conceptual relativity, – a much more flexible position and approaching to the one adopted in the present study. He even found some hint of the presence of such a conceptual relativity in Kant's critical philosophy. Putnam 1987, 17-20 and 43.

[19] "If I *truly know* anything," wrote Pierce, "that which I know must be *real*." And later he qualifies this statement: "But when I say that really to be is different from being represented, I mean that what really is, ultimately consists in what shall be forced upon us in experience, that there is an element of brute compulsion in fact and that fact is not a mere question of reasonableness." Peirce 1957, 166 and 168; italics in original.

[20] Cassirer who juxtaposes truth in art and truth in science, concludes his argument by saying that "the depth of human experience... depends on the fact that we are able to vary our modes of seeing, that we can alternate our views of reality." Cassirer 1944, 170. Criticizing Kant's standpoint on *a priori* knowledge, Merleau-Ponty suggests the same view of truth as explicited in this study: "From the moment that experience – that is, the opening on to our *de facto* world, – is recognized as the beginning of knowledge, there is no longer anyway of distinguishing a level of *a priori* truths and one of factual ones, what the world must necessarily be and what it actually is. The unity of the sense, which was regarded as an *a priori* truth, is no longer anything but the formal expression of a fundamental contingency: the fact that we are in the world – the diversity of the senses, which was regarded as given *a posteriori*, including the concrete form that it assumes in a human subject, appears as necessary to this world, to the only world of which we can think of consequentially; it therefore becomes an *a priori* truth... Thus the unity and the diversity of the senses are truths of the same order. The *a priori* is the fact understood, made explicit and followed through in all the consequencies of its latent logic; the *a posteriori* is the isolated and implicit fact." Merleau-Ponty 1962, 221; italics in original.

given perspective – and only in a secondary way ontic and epistemological, the epistemological being one aspect of ontic existence. Truth does play a regulative role in patterns of reasoning, and the position advocated here is that of a minimal realist, not tracing analogies with already known entities, in Newton-Smith's sense: "A minimal realist who claims that he has evidence for the truth or approximate truth of the sentences [uttered] certainly does take on ontological commitments. For he will be committed to the existence of whatever has to exist in order of those sentences to be true" (Newton-Smith 1981, 38). Minimal realism includes if not a causal but a reasoned ingredient of realism, which replaces evidence by giving reasons of a sentence or of a statement.

Hacking showed that bivalence is a property of patterns or styles of reasoning, that they are clearly oriented towards having a "definite truth value, true or false"[21] (Hacking 1985, 156). He writes that procedures such as styles of reasoning may determine but not assign, as Quine believes, possible truth-values. "A style is not a scheme that confronts reality" (ibid., 162). Newton-Smith acknowledges that this bivalence, in the philosophy of science, represents an intellectual space for differential assessment in the context of a given belief constituting our current perspective (Newton-Smith 1981, 257 and 261). Davidson not only affirms that a Tarski-style truth theory presupposes a general and pre-analytic notion of truth, but also opts for the holistic against the building-block method of sentence construction (Davidson 1984, 215-225):

> We do not know what someone means unless we know what he believes; we do not know what someone believes unless we know what he means... We could take truth to be a property, not of sentences, but of utterances, or speech acts, or ordered triples of sentences, times, and persons; but it is simplest just to view truth as a relation between a sentence, a person, and a time. Under such treatment ordinary logic as now read applies as usual, but only to sets of sentences relativized to the same speaker and time; further logical relations between sentences spoken at different times and by different speakers may be articulated by new axioms (Davidson 1984, 27 and 34).[22]

Joseph Margolis goes even further and says "there can be no principled basis for insuring uniquely determinate truth about the world" (Margolis, Joseph 1986, 92). The world exists independently of us, but viewed by humans from specific contexts.

3. Patterns of Reasoning and Relativism

Concepts of patterns of reasoning as well as of meaningful rationality imply, to a certain extent, relativism. Contextuality, which characterizes being-in-the-world, is, by definition, relativistic. The question really is whether relativism is total, whether it equals incommensurability between different frames of reference, or whether it is attenuated by a core of universal features – meaning ensembles and reasoning patterns, shared feelings and values – either biologically based, or common for all men because we live in the same world and encounter the same problems to be solved. I believe that we can do nothing to avoid the differences of human standpoints or points of view, or the pluralism of frames of reference,[23] because (i) genotypic and phenotypic variations due to natural selection and adaptive requirements; (ii) differences in

[21] "The interesting sentences are the ones that are up for grabs as true or false". Hecking 1984, 54-55. Newton-Smith explains the bivalence thesis as follows: "The expression 'accessible truth and falsity' is meant to refer to statements which are such that we can have reasonable grounds in certain contexts for thinking that they are true (or are likely to be true) and reasonable grounds in other contexts for thinking that they are false (or are likely to be false)". Newton-Smith 1981, 190.

[22] "Meaning is interactional. The environment itself plays a role in determining what a speaker's words, or a community's words, refer to." Putnam 1988, 36.

[23] I intentionally avoid reference to "conceptual schemes," made famous by Davidson, because these schemes expressedly refer to cognitive-lingustic categories, whereas I mean to include in characterizing patterns of reasoning or meaningful rationality all aspects of man's physical, affective, intellectual and spiritual life.

environmental circumstances which partially determine cultural evolution; and (iii) differences in cultural conditioning and the correspondingly developed social structures through tradition which play the principal role during the formation of reasoning patterns. Indeed, the problem of relativism was exaggerated, out of proportion with its importance, signaling the totalitarian tendencies of instrumental-purposive rationality, in its scientific and technologically dominating form. Meaningful, simply human, rationality does not embody the pretension to be the only valid form of reasoning, representing the rationality of mankind as a whole. Such a presupposition is the necessary prerequisite of a specific type of reasoning of which the *raison d'être* and unavoidable justification is its totalizing character as well as, related to this character, the belief in a universal human mind which everywhere and in all ages reveals the same pattern of reasoning and obeys to the same cognitive and logical rules. Such an appreciation of universal human rationality is not only a-historical, but also pseudo-scientific, and, above all, anti-human.

The problem of realism, rationality and relativism was especially in the forefront of the debates of social philosophy and the philosophy of science during the late seventieth with reference to the possibility of a dialogue with people brought up in other cultures and civilizations. To demonstrate the irrationality of the totalizing and dominating rationality of science and technology, I shall briefly sketch here the various positions outlined in this debate. Steven Luke summarized the ultra-rationalist point of view in his contribution to the volume on rationality edited by Bryan Wilson. Lukes suggests that

> Some criteria of rationality[24] are universal, i.e. relevantly applicable to all beliefs, in any context, while others are context-dependent, i.e. are to be discovered by investigating the context and are only relevantly applicable to beliefs in that context. I shall argue (as against Winch) that beliefs are not only to be evaluated by the criteria that are to be discovered in the context in which they are held; they must also be evaluated by criteria of rationality that simply *are* criteria of rationality, as opposed to criteria of rationality in context (Lukes 1970, 208).[25]

Martin Hollis launched, in the same debate, his idea of a bridgehead, which later was so often referred to, when considering translation into Western languages from a native language.[26] In line with Lukes' argument, Hollis considered that such a bridgehead could not be but "a set of utterances definitive of the standard meaning of words" (Hollis 1970b, 238). The same empirical reality underlies to any statement satisfying truth-conditions. Lukes' and Hollis' position was echoed by many social philosophers, for example, Margaret Archer, who agreed with Lukes that with those people who do not respect the ironclad logical laws of negation, identity or non-contradiction – supposedly cultural universals – we cannot communicate because their thinking is not comprehensible for us at all (Archer 1988, 110). And she quotes Hollis: "If the natives reason logically at all, then they reason as we do" (Hollis 1970b, 231). Thus, Archer is also a protagonist of trans-contextual criteria of thinking, of the possibility to "ascribe beliefs to social groups across time and space" (ibid., 113). In conclusion, Archer recommends to examine and evaluate any statement made by people belonging to other cultural orbits out of context against the tenets of our worldview and universal, and therefore neutral, logical thinking. This was, however, contradicted by some writers like Barry Barnes and

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[24] Lukes defines a criterion of rationality as a "rule specifying what would count as a reason for believing something (or accepting something)." Lukes 1984, 208, note 4.

[25] In his 1982 study on *Relativism In Its Place*, Lukes wrote similarly that "language learning involves the acquisition from the culture of specific conventions, that concepts seen as arrays of judgements of sameness may not coincide across cultures, and the the 'facts' are 'theory-laden'... All of this argues at best for conceptual and perhaps for perceptual relativism." Lukes 1982, 266.

[26] "The *sine qua non* is a bridgehead of true assertions about a shared reality. But plainly societies differ about what is real and rational and the philosophers problem is to see where the necessary limits on this divergence lie." Hollis 1982a, 216. In his contribution to the volume edited by Bryan Wilson, Hollis wrote a decade before: "The identification of everyday beliefs is indeed... an empirical matter...The assumptions required for identifying everyday empirical beliefs, are common perceptions, common ways of referring to things perceived and a common notion of empirical truth. Unless these assumptions work, the anthropologist cannot get his bridgehead – the set of utterances taken definitive of the meaning of everyday words... The notions of truth and falsehood cannot be separated from the notion of logical reasoning... These notions set the conditions for the existence not only of a particular kind of logical reasoning but also of any kind whatsoever." Hollis 1970b, 230-231; italics in opriginal.

David Bloor who affirmed "no account of our biologically-based reasoning propensities will justify a unique system of logical conventions."[27]

In respect of this debate, it is useful to evoke Hilary Putnam's arguments concerning what can be considered objectively right or wrong in certain determinate circumstances influenced by the culture and environment; or the relativity of any judgement warranted by actual and existing conditions. Putnam refuses the equation of rationality and irrefutability, and promotes a modest relativism implying the relativity of values (Putnam 1981, 167-173). In this sense, objective relativism means that the choice of goals, based on values, is neither rational nor irrational (if some minimal consistency requirements are respected), while the choice of means can be qualified as rational if they proved to be efficient. The reign of instrumental-purposive rationality is, in consequence, maintained in this version of modest relativism. Ian Hacking's "styles of reasoning," which means that nothing is simply true-or-false but the reality of views and statements depends "how we think, how we understand, how we reason,"[28] is based on his conviction that a common human core as to how deal with the world exists. But the fit between this core and reasoning styles is loose as specific styles of reasoning reflect different ways of seeing the environment (Hacking 1985, 158). The looseness of fit, and this makes Hacking's relativism more acceptable, makes possible for us to understand alien views and incorporating them into our own thinking without changing our approach.

For Joseph Margolis relativism is empirically based – in opposition to Hollis' thesis that empirical reality must lead to universals in belief and cognitive activity (Margolis, Joseph 1986, 111). He brushes aside the strong bipolar model of truth and falsity, and adopts a Newton-Smith-like model of minimal realism: "The world is so ordered that human inquiry is effectively 'linked' to its structures, so that human behavior is cognitively informed by that 'linkage'" (Margolis, Joseph 1984, 30). As a consequence skepticism has to be rejected but certain forms of incommensurability are tolerated. The acceptance of incommensurability corresponds to Margolis' concept of rationality, which he conceives of as coherence among internal mental states and the consecutive behavior. Rationality is therefore to be understood in terms of intentionality (ibid., 33). Thus, Margolis lays the foundations of his robust relativism implying, first, the recognition of the non-applicability of the logical principle of *tertium non datur*, and, second, the kind of arbitrary belief in what "we may (broadly on empirical grounds) take to be truth-like values," bypassing the Fregean principle of the indeterminacy of truth-value gaps (ibid., 119 and 122). Robust relativism is compatible with traditions and with Charles Taylor's plurality of standards[29] in the sense of the commensurability of different conceptual schemes. The robust relativist

> Shares with the opponents of relativism the ordinary alethic options of bivalent and many-valued truth-values: his distinction rests, rather, in theorizing that... the intelligible world can coherently support truth-claims that, on a bivalent model, would yield inconsistency and self-contradiction (just where we have reason to resist such results). He urges, therefore, the replacement (in alethic terms) of bivalence (and tertium non datur) in the interpretation of art works and human history, for example, or in the appraisal of higher-order theories in physics and metaphysics... The robust relativist only restricts (where needed) the epistemic power of our truth-claims (Margolis, Joseph 1991, 10).[30]

It is clear of most writings of Margolis that cultural relativity is the principal object of his pragmatic relativism, in a sort of continuation of the age-old but correct thesis of perspectivism, and without 'relationalizing' (as he calls it) truth-values. Judgement in perspective always implies epistemic and ontic

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[27] Barnes, Barry, and Bloor, David. 1982. "Relativism, Rationalism and the Sociology of Knowledge." In Hollis, and Luke. eds. 44.

[28] "We cannot reason as to whether alternative systems of reasoning are better or worse than ours, because the propositions to which we reason get their sense only from the method of reasoning employed. The propositions have no existence independent of the ways of reasoning towards them". Hacking 1985, 162.

[29] Taylor, Charles. 1982. "Rationality." In Hollis, and Lukes. eds. 87-105.

[30] "The essential insight is this: order does not require or entail unconditional invariance, not at the level of real structures of the world, and not at the level of the conditions of our understanding and intervening in the world." Margolis, Joseph, 1991, xiii. Concerning Margolis' thesis of two sets of truth-values see also Margolis, Joseph, 1986, 21-22.

considerations.[31] Among events in the ontic world the most important mentioned by Margolis is what he calls emergence, the existence or coming into existence of phenomena which cannot be explained, or are not describable, in physicalist or materialist terms (Margolis, Joseph, 1990, 175). This view implies a great complexity in the human community and complete interrelatedness in the world justifying a holistic approach.

Margolis' argumentation in favor of a robust relativism is the justification of MacIntyre's point of view concerning the proper rationality of traditions and, therefore, the unavoidable relativism of patterns of reasoning dominant in one or another of traditions. Relativity of traditional cognitive and ethical norms and worldviews reflects rivalry of human groups, communities and societies bearer of the traditions. It does not, however, exclude shared beliefs, ideas, values or attitudes. There are no independent standards by which the incommensurable features of traditions could be evaluated and, in consequence, there cannot be an objective investigation comparing and judging them. However, there can be complementarity between traditions adhering to different reasoning patterns if their protagonists do not aim at domination, but at the proper understanding of the others' beliefs, values, and attitudes.

To close this section on the relativity of human patterns of reasoning, a relativism concerning the real world and the truths we are looking for, I think it is appropriate to quote one of the less known texts of Ernest Gellner in which he beautifully expresses the ontological necessity of such a relativism:

> The uniqueness of the world hinges on the diversity, the non-universality of man. There is one world only, there are many men; and just because there are many kinds of men, there is one world. For the unique world is the achievement of *some* men only; and had men and cultures not been diversified, the single world might never have emerged, for social forms would not have differed enough to hit on this special one; and all these is of the essence of the thing (Gellner 1982, 186; italics in original).

4. Patterns of Reasoning and Human Action

Human action is intentional, therefore purposive (though not always instrumental),[32] and obeys patterns of reasoning. In certain cases, human action also implies following rules inherent in cultural contexts and, frequently, constituting determinate social roles. That is, either it implies the following of routine behavior patterns derived from traditions and internalized social practices; or it implies reacting to impulses or subjective desires which, in contradiction to reasonable rule-following or routine behavior, do not obey either reasoning or any kind of rules and routines. It is evident that patterns of reasoning are the most important factor in governing actions as they also reflect intentionality, - which might not be the case when one follows rules or routine behavior patterns. In this sense, as I mentioned in the preceding section, reasons take the place of causes. Reasoning, based on world awareness and self-consciousness, filters all causal stimuli in order to decide which action fits better the intentional framework, or, whether inaction is the suitable responses in view of the person's situation. Such reasoning may also follow an inherited, routine or self-imposed (principled) track in evaluating various possible outcomes of action. This is why the term patterns of reasoning is used, as it expresses the interlinkages between different ways of evaluating outcomes, or the pluralism of possible modes of actions (just as in the case of multiple causation in the mechanical world).[33]

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[31] Margolis makes reference to Peirce who already pointed out that "formal knowledge is absolutely universal, exact, and necessary' only relative to 'ideal constructions'... The assumption that such constructions appropriately fit the world, is completely unjustified. /The reference is to the Hartshorne-Weiss edition of Pierce's *Collected Papers*. Cambridge, Mass.: Harvard University Press, 1960, 6: 595/. Margolis 1991, 52.

[32] Martin Hollis, though a universalist, was not favoring instrumental action: "The key argument is that rationality is not just a measure of consistency. Rational action can follow on false belief or misplaced desire but only when the belief is rationally held or the desire rationally supported. Objective standards are being invoked, even though we have to bet what they are. So there is no escaping the notion of real interests. Autonomous men are moved not by mere desire but by desire for what is truly expressive. The twin effect is to dethrone instrumental and promote expressive rationality." Hollis 1977, 138.

[33] Heisenberg's analysis of decision and deliberation is just to the point here as it explains seemingly irrational decisions. Heisenberg 1958, 205.

Patterns of reasoning invoke the autonomy of man, being-in-the-world, transcending, simultaneously, the world, and his own free will.

The relation between patterns of reasoning and human action is particularly evident when one considers what Dewey called the ineffable immediacy of existence in which prompt reactions, are the result of the awareness derived from the integrative power of the mind, and from the reasoning patterns which are closely linked to intentionality (Dewey 1958, 85). Dewey considered that in existence structures and processes are historic phenomena in which causality is not the same as in the cosmos, but cause and effect are on the same level (ibid., 71-72 and 109).[34] This means, in my interpretation, that reasons and not causes are determining outcomes. The matter is complicated by the fact that the world in which men live is an open world, but one which is exposed to innumerable events and influences, to the effect of an infinite number of mechanical causes, on the one hand, and by an infinite number of actions carried out by other creatures, on the other hand. Man's world is a world of complexity and contingency, a world of infinite possibilities and expectations of which but very few are, or may be, realized.[35] Patterns of reasoning, then, imply choices between alternative ways of action or non-action, including possible outcomes but excluding mechanical causes. These choices are based on information or intuition reflecting conscious or unconscious intentions of free will. The expression free will has to be qualified in the sense that a being-in-the-world's will is free though he acts (i) under environmental constraints, (ii) in accordance with a cultural tradition and with moral principles internalized in the community in which he lives (a rule-following behavior), and, (iii) in the limits of his genotypic and phenotypic heritage. Selection between possibilities, i.e., making choices is, with the exception of routine or impulsive actions, always a self-conscious act which implies a reasoning pattern, or a reflective process.

Human action is thus situated in a world shared with other human beings, and in the cosmos containing innumerable other species and inorganic substances. Both are emerging worlds, or worlds in continuous change and movement. As far as the human world is concerned, it is an intersubjective, transubjective, or common world, that is, consisting of other individual subjects with which every human being is in direct or distant relation.[36] This is the reason for the fact that human action is always defined in a threefold temporal perspective: the overwhelming present, but also the beliefs, values and worldviews transmitted by tradition and cultural heritage from the past as well as the expectations of future events, achievements or disillusions. Action being situated in an intersubjectively constituted community – which means that the individual,

[34] "The general, recurrent and extensive has been treated as the worthy and superior kind of Being; the immediate, intensive, transitory, and qualitatively individualized taken to be of importance only when it is imputed to something ordinary, which is all the universal can denotatively mean. In truth, the universal and stable are important because their are the instrumentalities, the efficacious conditions, of the occurrence of the unique, unstable and passing." Dewey 1958, 116.

[35] In a recent study, Luhmann describes experience as determined by the choice between infinite, open, and transcendent possibilities: "The most important features of the differentiation between Actuality and Potentiality found in experience resides in the character of the overabundance of possibilities, which by far exceeds what can be realized through action or actualized in experience. The actual, given contents of experience always point by way of referenece and implication to far more – whether taken together or as a sequence – than can be brought into the narrow spotlight of consciousness. Alongside direct, immediate conscious experience there stands a world of other possibilities. This self-overburdening of experience with other possibilities exhibits the double structure of complexity and contingency. The term *complexity* is meant to indicate that there are always more possibilities of experience and action that can be actualized. The term *contingency* is intended to express the fact that the possibilities of further experience and action indicated in the horizon of actual experience are just that – possibilities – and might turn out differently than expected, i.e., that these indications can be deceptive... In practice, then, complexity means the necessity of choosing; contingency, the necessity of accepting risks." Luhmann 1990, 26; italics in original.

[36] Intersubjective understanding is based on intersubjective meanings defined by Charles Taylor as "ways of experiencing action in society which are expressed in the language and descriptions constitutive of institutions and practices" or on common meanings which Taylor describes as "notions of what is significant which are not just shared in the sense that everyone has them, but are also common in the sense of being in the common reference world... Common meanings are the basis of community. Intersubjective meaning gives a people a common language to talk about social reality and a common understanding of certain norms, but only with common meaning does this common reference world contain significant common actions, celebrations, and feelings. These are objects that everybody shares. This is what makes community." Taylor, Charles 1979b, 50-51.

whether he recognizes it or not, is impregnated by the culture, traditions, and shared expectations of that community – is therefore frequently, but not always and obligatorily, a communicative action.

Most contemporary philosophers recognize the importance of the communicative aspect of human action, but it was Habermas who emphasized this character of action and made of it the basic texture of social life. Logically, he conceived of communicative action as discursively constituted, and thus applied another reduction to the concept of action, excluding through this double limitation what he himself calls self-expressive action, such as artistic activity. In the Habermasian vision, communicative and discursive action constitutes rational action, rational action being one for which "there are good reasons or grounds" (Habermas 1984/1989, 1: 22). This shows an apparent similarity with patterns of reasoning advocated in this study. Habermas' rationality, however, has a double meaning: instrumentally rational aiming at mastery, and communicatively rational aiming at understanding. The former is linked to cognitive activities and the real world, the latter, as communicative practice, is interwoven with the lifeworld. Moral actions – normatively regulated actions in Habermas' terminology – and self-expressive actions – assimilated to assertions or constative speech acts, referring to beliefs, values, or events either in a common human world or in one's own subjective world – are "understandable in their context," and "connected with criticizable validity claims" (ibid., 8-16).[37] It is, however, not clear how normatively regulated actions and, in particular, self-expressive actions are modes of communicative action – because the first are regulated by norms either inherited or mostly established in a preceding communicative action, and the second normally do not denote a communicative intent. In a later writing, Habermas pretends – still remaining within the framework of his (non-Popperian) conceptualization of three worlds – that relations to the speech community and to one's subjective world can be assimilated to relations with the objective world (ibid., 82-84).

For Luhmann, the complexity and contingency of the world of action is resolved by the fact that meaning appears as "the identity of a complex of possibilities." Identical meanings serve a double function: they constitute, and, at the same time, reduce as well the possibilities of experience and action "through a *differentiating negation*, in which several mutually independent dimensions of experiencing the world are constituted. The multidimensionality of the world is a precondition for the constitution of identical meaning (and vice versa)" (Luhmann 1990, 35-36; italics in original). These dimensions are threefold in Luhmann's conceptualization: the social, the temporal, and the material dimensions.

In my perspective, multidimensionality is linked to a multipolar configuration: the spatial-local, the temporal-historical, the material-objective, the communal-social, the cognitive-affective, the ethical and the spiritual. However, I accept Luhmann's idea that meaning-identity works its way through differentiating negations in order to reduce infinite possibilities to the truly possible – the actualized experience and action – taking necessarily into account conditions of contingency.

[37] Habermas understands by validity claims of a certain utterance: (i) that it is intelligible (*verständlich*); (ii) that its propositional content is true (*wahr*); (iii) that its performative component is correct (*richtig*), and, (iv) that the intentions expressed are sincere (*wahrhaft*). Habermas 1984/1989, 1: 305-308; italics in original.

CHAPTER EIGHT

TRANSCENDENCE AND COMMUNITY

1. Individual and Community

We live in the age of the individual. Modernity brought with itself, since the seventeenth century, a total individualization of human life, under which belonging to a community is not only not considered necessary or normal but is rejected as an obstacle to the free development of the individual personality. This excessive individualism is the result of a misunderstanding of the fundamental features of human existence, of man's being-in-the-world, which is not possible, or imaginable without a community. Every individual, whether he wants it or not, is born into a community. His existence, his views, his patterns of reasoning and his actions are partially or entirely determined by those prevalent in the community,[1] which themselves are mostly determined by tradition, by beliefs and values inherited or derived from lessons of the past, and by expectations concerning the horizons of the community's future as well. It is impossible to juxtapose individual and community because the two are, in a dialectical way, identical and different simultaneously.[2] The belonging of the individual to a community is not a question of his decision, but an aspect of his biological and cultural nature. The existence and the fate of a community and of an individual are inextricably interwoven, and this is not only a biological truth but also a cultural and social fact. Buber expressed this truth by saying that "man exists anthropologically not in his isolation, but in the completeness of the relation between man and man; what humanity is can be properly grasped only in vital reciprocity" (Buber 1988, 74).

In reality, community is one of the major aspects of transcendence of human existence. This transcendence is simultaneously biological and cultural through the long sequence of successive generations in which an individual is linked to his predecessors and also to those who will follow him. The above conceptualization of community as transcendence shows, however, that community does not mean

[1] With reference to Scheler, Schutz wrote that "the basic We-relationship is already given to me by the mere fact that I am born into the world of directly experienced social reality. From this basic relationship is derived the original validity of all my direct experiences of particular fellow men and also my knowledge that there is a larger world of my contemporaries whom I am not now experiencing directly. In this sense Scheler is right when he says that the experience of the We (*die Erfahrung vom Wir*) in the world of immediate social reality is the basis of the Ego's experience (*die Erfahrung des Ich*) of the world in general [The reference is from Scheler's work: *Erkenntnis und Arbeit* in *Die Wissensform und die Gesellschaft*. Leipzig: 1926, II: 475]. Schutz 1967, 165; italics in original.

[2] Mead took a resolute position on this subject: "One difference between primitive human society and civilized human society is that in primitive human society the individual self is much more completely determined, with regard to his thinking and his behavior, by the general pattern of the organized social activity carried on by the particular social group to which he belongs... In civilized society individuality is constituted rather by the individual's departure from, or modified realization of, any given social type than by his conformity, and tends to be something much more distinctive and singular and peculiar than it is in primitive human society. But even in the most modern and highly-evolved forms of human civilization the individual, however original and creative he may be in his thinking or behavior, always necessarily assumes a definite relation to, and reflects in the structure of his self or personality, the general organized pattern of experience and activity exhibited in or characterizing the social life process in which he is involved, and of which his self or personality is essentially a creative expression or embodiment." Mead 1934-38, 1: 221-222.

anybody in man's human environment[3] and, especially, it does not mean humankind as a whole in an idealistic-universalistic way. Community is inseparable from other-orientation based on common biological roots or a shared and common cultural and moral context. Crowds and masses do not represent a human community as much as the consumer culture does not create an authentic community. Both give rise at best to common interests prevalent for a fleeting moment in an ever-changing context. Empathy with the sufferings of distant people, brought close by the media, does not create either a community but an ephemeral compassion, nor do politically motivated interests mean that a genuine community is present between those allied for defending their common interests. A community of soccer players and their supporters, for example, or of commuters in a great metropolitan region, or of those benefiting of certain governmental largess, are not a transcending community in the sense meant here. A community based on interests, shifting and never eternal, is not a real community; for the latter, more deep and resistant foundations are needed.

In my terminology it is better to call these interest-based groups associations. They play an important role in social life. These associations, together with social and cultural institutions such as classes (which may have community-based structural foundations like the untouchables in India) or churches (which as institutions are social phenomena but whose foundations must, by definition, be based on religious communities), constitute, as a consequence of my categorization, the civil society. I could also simply designate them as the building stones of society itself,[4] but I believe it is better to distinguish society from civil society in the sense that the designation of society includes the state as well, which is the overall coordinating institution, the seat of force and power in society, and must therefore be, naturally and logically, differentiated from the institutions and associations of which civil society consists.

This categorization presupposes another important differentiation in respect of the complexity of modern societies, that between a citizen as a member of society and a citizen as a subject of a state. We painfully learned in our century that the two are far from being identical. It is remarkable what a lucid sight Dewey displayed seventy years ago, harking back to Tönnies famous distinction between *Gemeinschaft* and *Gesellschaft*, how modern society is lacking in those elements, which constitute a real and vivid community:

> The Great Society created by steam and electricity may be a society, but it is no community. The invasion of the community by the new and relatively impersonal modes of combined human behavior is the outstanding fact of human life... Associated or joint activity is a condition of the creation of a community... Associated activity needs no explanation; things are made that way. But no amount of aggregated collective action of itself constitutes a community. For beings who observe and think, and whose ideas are absorbed by impulses and become sentiments and interests, 'we' is as inevitable as 'I'. But 'we' and 'our' exist only when the consequences of combined action are perceived and become an object of desire and effort... Interactions, transactions, occur *de facto* and the results of interdependence follow. But participation in activities and sharing in results are additive concerns. They demand *communication* as a prerequisite (Dewey 1994, 98 and 151-152; italics in original).

[3] The concept of transcendent community, as described here, is totally different from the social environment evoked by Mead in an ontogenetic perspective, under the label of the "social origin of the self." "The individual experiences himself as such, not directly, but only indirectly, from the particular standpoints of other individual members of the same social group, or from the generalized standpoint of the social group as a whole to which he belongs. For he enters his own experience as a self or individual, not directly or immediately, not by becoming a subject to himself, but only in so far as he first becomes an object to himself just as other individuals are objects to him or in his experience; and he becomes an object to himself only by taking the attitudes of other individuals toward himself within a social environment or context of experience and behavior in which both he and they are involved... The self, as that which can be an object to itself, is essentially a social structure, and it arises in social experience... The unity and structure of the complete self reflects the unity and structure of of the social process as a whole... The organized community or social group which gives to the individual his unity of self may be called 'the generalied other'." Mead 1934-38, 1: 138, 140, 144 and 154.

[4] Hayek analyzes well the use of the term society: "Thus the word society has become a convenient label denoting almost any group of people, a people about whose structure or reason for coherence nothing need known – a makeshift phrase people resort to when they do not quite know what they are talking about. Apparently a people, a nation, a population, a company, an association, a group, a horde, a band, a tribe, the members of a race, of a religion, sport, entertainment, and the inhabitants of any particular place, all are, or constitute, societies... The crucial difference overlooked in this confusion is that the small group can be led in its activities by agreed aims or the will of its members, while the extended order that is also a 'society' is formed into a concordant structure by its members' observance of similar rules of conduct in the pursuit of different individual purposes." Hayek 1988, 113.

The original form of community is the one in which people know each other personally, where there is an immediate interface between them, the relation Schutz called the "directly experienced social reality."[5] In fact, his presentation traces the various communal allegiances in concentric circles around this most immediate experience of others. These circles correspond, in Schutz' view, to the forms of perception – actual or possible – as this directly experienced social reality is complemented by the contemporaries in the whole world, whom one knows personally or whom one knows about through people known and through the media. With the latter one does not share experiences, rather one knows about them by indirect evidence only, but one still can have with them common ideas, beliefs, values or expectations because we live with them in an intersubjective world. Here the comparison of actual and possible perceptions stops, but the image of concentric circles representing more distant communities to which one belongs is still valid.

There is, first, the community of those who preceded the actual generation, the social world of predecessors, and, second, the community of those who will follow the humans living in the present, the "social world of successors." With members of these communities no person presently existing can have direct contact, except through traditions, texts, scientific, artistic or religious works, either inherited from the past, or left as inheritance to future generations. One can only suppose that they will experience the world in a similar way as one does oneself because they also will be beings-in-the-world (Schutz 1967, 142-144). As Dewey pointed out, communities are cemented together by communication, "the origination of a sign within an attitude of Other-orientation" in the Schutzian vocabulary (ibid., 150). Many modes of communication do exist, but communication is only effective if it is founded on the elements of a common cultural world.[6] There must be a reciprocal motivational context as the framework of dialogical communication. Communication is therefore effective when a dialogue is taking place and an interaction follows. Such a reciprocal responsiveness implies that before a sustained dialogue and resulting interaction, the communication is merely informative in the sense that it simply indicates intentions, choice and action-orientation.[7] These characteristics of communication are valid only in cases of direct, immediate relationship. In cases of relationships with anonymous persons, contemporaries unknown to us personally but known as living in the contemporary world, communication proceeds through knowledge received and learned about them, through interpretation and interference as well as through recourse to the so-called ideal types, or stereotyped ideas and images. The communication with such anonymous contemporaries is especially important in our age when technological innovations reduced spatial and temporal distanciation between people living in the same world, therefore I quote here Schutz' comments on it:

> The subjective meaning-context has been abandoned as a tool of interpretation. It has been replaced by a series of highly complex and systematically interrelated objective meaning-contexts. The result is that the contemporary is anonymized in direct proportion to the number and complexity of these meaning-contexts. Furthermore, the synthesis of recognition does not apprehend the unique person, as he exists within his living present. Instead it pictures him as always the same and homogeneous, leaving out of account all the changes and rough edges that go along with individuality... *The typical and only the typical is homogeneous*, and it is always so. In the typifying synthesis of recognition I perform an act of anonymization in which I abstract the lived experience from it's setting within the stream of consciousness and thereby render it impersonal (Schutz 1967, 184 and 186; italics in original).

[5] "And there is a third kind of transcendence involved, but a transcendence which surpasses not only mine but also the other's world: the We-relation itself, although originating in the mutual biographical involvement, transcends the existence of either of the consociates in the realm of everyday life. It belongs to the finite province of meaning other than the reality of everyday life and can be grasped only by symbolization". Schutz 1955, 165.

[6] The well-known French sociologist, Alain Touraine wrote in analyzing contemporary social movements that "there can be no social relation unless the actors are operating in the same cultural field." Touraine, Alain. 1978. *The Voice and the Eye: An Analysis of Social Movements*. Cambridge,:Cambridge University Press, 32.

[7] "Actions between contemporaries are only mutually *related*, whereas actions between consociates are mutually *interlocked*. The being related to each other of contemporaries occurs in imagination, whereas the interlocking mutual engagement of the We-relationship is a matter of immediate experience. Between these two situations we find many intermediate degrees." Schutz 1967, 180; italics in original.

It is relevance in any given case that links together meaning-context, interpretative efforts, and homogenized ideal-types or abstractions from available knowledge. The correlation is not mechanical. It depends on the information available and whether the directive function of communication, referred to above, disclosed the extent of correlative relevance. I do not believe, with Schutz, that "coexisting systems of coordinates" can be easily translated into each other, or that they can substantially coincide for contemporaries, whence comes the importance of information and dialogic communication (Schutz 1955, 163-165 and 169).

2. Community and Tradition

In Habermas' analysis though "the life conduct of an individual is entwined with the life-form of the collectivity to which he belongs," in modernity individual identities come into being through manifesting themselves in the course of autonomous actions (Habermas 1989, 110 and 98). These two momentums of self-determination and self-realization lead a person to assume a role-identity in the society in which he became socialized, reaching understanding with others and coordinating his action with them – through communication. In communication, members of a community have recourse to certain definite, interpretative, cultural patterns – a stock of knowledge or tradition – that constitute a background knowledge accepted by the whole community. At the same time, however, individual formulations of ideas, problems and solutions are also incorporated in the semantic content of actual utterances (ibid., 220). Habermas defines the natural and cultural backgrounds of communicative action as its extra-linguistic contexts, which are symbolically restructured through language. Symbolism, with its conventionally fixed meanings, penetrates not only the subjective-expressive forms of action but also those as well which are normatively oriented, or rule-guided, such as the behavioral repertoire. Following Mead, Habermas explains by these symbolically constituted and motivated normative orientations, the constitution of supra-individual social institutions of which collectivities and not subjectivities are the bearer: "In this process language functions as a medium not only of reaching understanding and transmitting cultural knowledge, but of socialization and social integration as well" (ibid., 24).

Traditions are thus institutions, which represent the fundamental factor in reaching understanding in communication, and assure as well coordination of individual actions, thereby integrating the members of a community. Therefore, Shils description of tradition as a "dimension of social structure" is certainly correct, especially in view of his definition of tradition as created by human thought, imagination and action (Shils 1981, 7). As reservoirs of ideas, patterns, motivations, memories of events and actions of the community's historic past, traditions are carried over from generation to generation as the heritage received from predecessors by contemporaries who will transmit it to their successors. Traditions are never simply transmitted but reshaped, embraced, added to, quasi-newly created in what Gadamer called the "effective historical consciousness" (Gadamer 1985, 323-325). The changing nature of interpreted traditions is well explicited by Shils:

> Constellations of symbols, clusters of images, are received and modified. They change in the process of transmission as interpretations are made of the tradition presented; they change also while they are in the possession of their recipients. This change of transmitted variants of a tradition is also called tradition: as in the 'Platonic tradition' or the 'Kantian tradition'. As a temporal chain, tradition is a sequence of variations on received and transmitted themes. The connectedness of the variations may consist in common themes, in the contiguity of presentation and departure, and in descent from a common origin (Shils 1981, 13).

Looked at from the point of view of communities, traditions can only be substantive. Contrarily to the rather general biological and ecological endowments, their tenets and features are much more differentiated. They may share a substantive content, but they may also be radically different and opposed to each other. There are no universally valid standards, independent from any of the known traditions, by which they could be evaluated and judged. They can only be justified in their own terms, in accordance with their own rationality (MacIntyre 1988, 350-351). The reason for this incommensurability is that traditions also have an inherently normative character and, consequently, they need adherence, affirmation and acceptance. It is through their normative character that traditions – which are binding together not only contemporaries but

generations of the dead, of the living, and of the not-yet-born – are the foundations of the cohesion of a particular community or society. Temporary traditions or fashions[8] do not characterize human communities as such but, eventually, associations or other social groupings, and in a limited way they also guide the conduct of their adherents. This is, however, not a meaningful guidance of conduct in a deeper sense, explaining and determining not only everyday but ultimate realities as well. It is natural that this should be so because traditions have a long-range temporal dimension, are preserved by memory's retentive absorption and become, in most cases, part of personal and collective identity. If traditions are, wholly or partially, incorporated into personal and collective identities, this is because they fulfill a most important, fundamental function: situating man and his community in the cosmos, and in their confrontation with the inexorable destiny of the human species.

3. Community, Participation, and Solidarity

Transcendental communities constitute the only source of genuine solidarity in society because they are as well the genuine foci and participation. Participation means shared identity or consubstantiality, including coherence and patterns of reasoning, as the main structural feature of human views of the world. It is not possible to create, artificially, by decree, or by ideological slogans, genuine solidarity. Quasi-solidarities like the ones derived from belonging to associations or social institutions are ephemeral as much as the community's character and the affective, intuitive and cognitive links underlying them. Solidarity and participation, in an authentic sense, are intertwined and inseparable through common belonging and common ideals and values. Solidarity and participation conceived in this way are not weakening but reinforcing man's transcendence as being-in-the-world because they become, simultaneously, instruments and outcomes of this transcendence. Solidarity and participation presuppose a dialogue in relations between humans (as Buber said), which defines, in the framework of these relations, truth as a dialogue between men as they are, not as they may or want to appear.

The differentiation between community and society is particularly important for two reasons: first, because participation in the life and activities of a community has to be strictly distinguished from participation in power in the society's most important social formation, the state. The participation in political processes, be it in a democratic state, is practically a denial of what participation in a community's life means. As the state's power and intervention in social life having gained importance in modernity, the development of a human rights regime to protect the individual person became necessary (Kolakowski 1990, 153-154). Citizenship, a political category, reflects the reality of this political process. The appeals to solidarity aim at replacing the lost abilities of human communities to stimulate such solidarities. In this respect, one can refer to Sahlin's description of kinship systems as a form of participation in a community (Sahlins 1976b, 40-41). In kinship systems, the interest of a group, a cultural more than genealogical community, is conditioned by the reciprocally beneficial and traditionally ordered behavior of its members without particular differentiation between them, except the traditionally accepted in-group ordering. The social cohesion of the kinship group is a factor in its eventual reproductive success; the latter success, however, does not constitute a condition of cooperation and cohesion in kinship systems.[9]

Second, the differentiation between community and society is also crucial because society is a purely human phenomenon, whereas the concept of community, in its largest sense, encompasses man's environment, nature or cosmos, as well. It is natural for men that their own community is the most important

[8] In opposition to tradition, writes Shils, "brevity of duration is the mark of a fashion. Fashion and tradition have in common the presentation of a pattern and its reception by other persons; a fashion is not a tradition as long as its duration is confined to a single generation, even if it lasts much of the life of that generation. Many fashions do not last that long. A fashion must find recipients relatively rapidly and over a large proportion of the population in its short life; a tradition can grow more gradually since it has a greater longevity." Shils 1981, 16.

[9] "Kinship is a unique characteristics of human societies," writes Sahlins, "distinguishable precisely by its freedom from natural relationships...lit follows that human beings do not merely reproduce as physical or biological beings but as social beings... what is reproduced in human cultural orders is not human beings *qua* humans beings *but the system of social groups, categories, and relations in which they live*. The entities of social reproduction are precisely these culturally formulated groups and relations." Sahlins 1976b, 58-60; italics in original.

as it determines the contours of their human world. But the evolution of the modern world, however, also taught us that human beings and human communities are embedded in their natural environment. We cannot dominate it because they depend on it, therefore we have to interact with it and recognize the cosmic world as well as a community. Man cannot liberate himself from the ontological interdependence characterizing nature. "Nature is seen by men through a screen composed of beliefs, knowledge, and purposes," wrote more than two decades ago Roy Rappaport, "and it is in terms of their cultural images of nature, rather than in terms of the actual structure of nature, that men act" (Rappaport 1971, 246). Modern man, therefore, has to change his attitude towards nature, and forget his dominating intentions and accept to participate in nature's life as part of it.[10] Culture is part of nature and the two cannot be juxtaposed.

[10] "Technology is not culture-neutral any more than it is value-neutral. To adopt a technology is to adopt, like it or not, the matrix of presuppositions in which the technology is embedded. And 'modern technology', for the most part, is embedded in the Bacon-Newton complex of ideas - science as manipulating power over an inert, material, mechanical *res extensa*." Callicot, and Ames. eds. 1989, 280; italics in original.

CHAPTER NINE

TRANSCENDENCE AS ETHICAL DIMENSION

The ethical dimension is the real, overarching form of human transcendence. In ethical thinking and behavior human transcendence reaches its full sense for man as being-in-the-world. It links together individual and community as well as persons belonging to the same cultural group because in the ethical domain there is no differentiation, there are no distinctions, the overwhelming authority of ethical convictions unites all sides, all members of a community, and all those who belong to the same culture. Speaking of specific communities and of particular cultures, and their respective ethical principles and rules, does not mean that the main characteristic of human existence – transcendence – is not a universal aspect of human nature. Transcendence, in its ethical dimension, is universal because it is an ontological feature of human existence, and not because the same principles and rules are applicable to all men. It is, however, even possible to detect a common core of ethical convictions in all human groups and cultures, convictions which are either biologically based, or which are related to survival values and adaptive necessities, or which correspond to certain generic features of cultural evolution in general.

I shall first examine the fundamental question of what is ethics and what are morals for man as being-in-the-world and refer to the double character of human nature: the existence of good and evil in human beings. I shall further analyze the respective roles of community and individual in the ethical domain, including the distinction between good and justice as well as the perspectives of ethical universalism and relativism. Finally, freedom as the highest moral attitude will be exposed as the true ethical way of life in this world and in one's own community.

1. The Nature of Ethics and Morals

There is no fundamental difference between ethics and morals, in my understanding, because the ethical is the principled stand for certain values and related norms expressed in worldviews and human convictions, whereas morals concern the practical realization of ethical principles in behavior and action. To give an example, the obligation to respect a human person, a man's dignity, is an ethical principle; the innumerable aspects of the respect of this principle in everyday life is a moral behavior. Ethical values and norms (what Northrop called "the normative inner order")[1] are intimately linked to a culture belief- and value-systems and, therefore, interrelated as well with the same culture's religious origins and with the rationality structure dominating it. Ethics and morality are both rooted in an individual's inner world and in a community's cultural world.

Why are ethical principles governing man's life necessary? Why is a moral conduct, which corresponds to the values and norms, accepted by the community so highly placed in every civilization? The answer is that *ethics are rooted in the existence of evil, in the double nature of man who simultaneously is the seat of virtues – the moral good – and of destructive, many times self-destructive, instincts and undisciplined emotions – the moral evil*.

[1] Northrop, F.S.C. *The Taming of the Nations: A Study of the Cultural Bases of International Policy*. New York, Macmillan, 1952, 5.

The origin of man's double nature is both biological and cultural. Biology not only asserts that every individual human being is a *sui generis* creature (not even twin brothers are exactly the same in their genotype), but it also recognizes that, though genes are normally reproduced in successive generations in different combinations, they may be incorrectly copied or combined like in the case of (biologically understood) nefarious mutations in genetic variations between individuals or populations. But the evil in a human being may also have a cultural origin in the sense that its individual impulses and emotional reactions are in contradiction to the values and norms of the community in which he lives; in Africa, for instance, where insufficiently socialized members of societies who oppose themselves against shared moral traditions and common ways of life,[2] are considered as evil. Even a community can be evil in its conduct, for example towards the natural environment, in which its wrong moral behavior is conditioned by its own culture – as even cultures can go astray. Culturally constructed evils are detected only *ex post facto* when their results become manifest and a whole community, eventually the whole human community, have to bear the consequences of such a conduct. Even the evil of biological origin cannot be excused on the basis of the recognition that its possession does not depend of the individual's will, if it is in contradiction with the collectivity's ethical convictions. The correction of biologically conditioned evil tendencies in an individual is, in consequence, certainly not possible by education or the placement of the person concerned in a proper social milieu. The success of such endeavors is even doubtful in the case of insufficiently or wrongly socialized members of a community or society, though for them, undoubtedly, there are chances of a fundamental moral improvement. Thus, ethical principles and convictions and moral conduct are in every culture destined to guide each man towards the moral good, and away from the moral evil, as the community defines them, in its own cultural terms (unable, of course, to take into account biologically conditioned causes of a morally wrong behavior as they are normally discovered only *ex post facto*).

The fundamental question in respect of ethical principles and moral practices is what is the source of these principles leading to moral attitudes? The answer to this question is essential because it explains how such principles and practices survive from generation to generation during the centuries long history of a civilization, and how the same principles and attitudes can be found in several culture areas of the world among which diffusion was not possible. To consider ethics as a dimension of human transcendence – beyond the immanent, everyday realities – depends also on the answer given to this question. I think that there are two immediate sources of ethical views and convictions. The first source is in the requirements of the biological evolution, the need to adapt to varying circumstances and to changing conditions of survival. Genotypic and phenotypic variations probably contain directions, in weaker or stronger forms, to this effect. Such biological motives may underlie the ethics of family solidarity and of childcare in all parts of the world forming what one can call the core of a universal ethics. This example, however, also shows that it is very difficult to separate the role played by biological and cultural evolutions in the appearance of ethical convictions and attitudes, because family solidarity and child care are also part of the culturally transmitted heritage in most civilizations. Nevertheless, I do not doubt that a certain number of ethical principles and practices have a biological basis, at least in the sense that phenotypes contain the necessary genetic makeup making possible ethical attitudes.

It is, however, my conviction as well that the foundation of ethics is simultaneous with the appearance of a nascent culture linked to the fact that man became conscious of two overwhelming realities in his life. The first is the awareness of the existence of an awesome universe, the natural world, in which man is but a negligible element or participant. This is not necessarily the feeling of a fear, but rather it is the becoming conscious of the unimaginably vast totality of the cosmos. Thus, *the first cultural source of ethics is the*

[2] In his description of African religions, Mbiti refers to the concepts of moral and natural evils: "Moral evil pertains to what man does against his fellow man. There are customs, laws, regulations and taboos that govern conduct in society. Any breach of the right conduct amounts to moral evil. We find endless examples of that in African societies. It is the opposite of cultivating or manifesting the virtues of good character. What lies behind the conception of moral 'good' or 'evil', is ultimately the nature of the relationship between individuals in a given community or society... By this [natural evil] I mean those experiences in human life which involve sufferings, misfortunes, calamity, accidents and various forms of pain. In every African society these are well known. Most of them are explainable through 'natural' causes. But as we saw for African peoples nothing sorrowful happens by 'accident' or 'chance': it must all be 'caused' by some agent (either human or spiritual)... The logic here is that 'natural evil' is present because these immoral agents exist: and these are evil because they do evil deeds." Mbiti 1969, 213-214.

cosmic worldview.[3] The second is, concurrent with the first, the death-awareness of man, in contradistinction to all other living organisms, which leads him to respect nature and his fellowmen during the time he is allotted in our common world. In consequence, *the second source of ethics is our consciousness of human finality*.

Different answers were given in different cultures to these fundamental questions of human existence, but the fact that such answers were common to groups of people clearly indicates that ethics is the product of these human communities, of the interaction, in the life of each generation, between individuals and communities. For this reason one cannot speak of individual ethics. Personal ethics only means that an individual internalized, overall or in part, the ethical heritage of his community and became a protagonist of it. Individuals and community are together the bearers of the ethical principles and are together the agents of the moral practices embedded in their culture.

To be ethical means, however, that the moral agent must have a *choice*, that is, must have the possibility to decide between two or more alternatives. This implies a being-in-the-world whose existence is in freedom. Ethical attitude, moral conduct and freedom mutually presuppose each other. But choice also implies that it is to be carried out between *relevant* alternatives and in accordance with criteria, which satisfy the requirements of a meaningful rationality.[4] The problem of what is morally relevant concerns, in my understanding, all nontrivial matters – individual or collective – that arise in the course of human activities.[5] In this respect, nontrivial means all opportunities of choice, which necessitate a deliberate judgement of the person or persons concerned. There is no deliberate judgement needed in order to decide whether I desire to have for today's lunch fish or meat, but a deliberate judgement is required from somebody who is conscious of the vast ecological devastation and the disappearance of diversity in nature, when he is responsible for activities (for example, logging, construction, mining in particular sites) which contribute to such a devastation. The same goes for a community. No deliberate judgement is required when deciding about the construction of an hospital or day-care center in an urban area where the need is evident, but the absence of a deliberate ethical judgement is involved when the community does not care about, for example, the cleanliness of the drinking water for the use of its members. It goes without saying that in the cases where deliberate judgement is necessary, the application of an ethical principle is in question: "It is a great mistake to think that there can be a morally or evaluatively neutral process of picking out the relevant features of a situation, which then can be followed by the job of appraising or evaluating the situation morally" (Hare 1989, 193). It is important to add that moral relevance does not follow from the application of universal, or (with Hare's expression) universalizable, ethical precepts, in contradiction to most modern moral philosophies, but it is the consequence of the consistent and coherent application of a morality the contextual validity of which is confirmed in a local cultural framework.

Moral relevance is closely linked to the criteria of rationality of culturally validated ethical principles. It is erroneous to found ethics on a purely formal and normatively neutral rationality, as Kant and his idealistically motivated followers did, in order to achieve a universal prescriptivness of moral rules. Patterns of reasoning, which may guide ethical decisions, reflect not an intellectualist or cognitivist but a meaningful rationality which is determined by the circumstances in a given situation and by the cultural background that prevails in the civilization in question. Ethical principles are not prescriptive because they are rational. What is ethical and what is rational both are consequences of the worldview and of the cultural framework people behold, because this framework conditions the intentions of men in the world they belong to. The ethically relevant and practical rationality has nothing to do with epistemology and logic which govern other domains of human

[3] It is striking that Confucius, the essence of whose doctrine is a secularly conceived ethics, believed that the cosmos consists in a moral order and that man's duty is to conduct his affairs in a way that they should be in harmony with the moral order of the natural world. His thought implied the idea of cosmic retribution and also that, like in the African cosmologies, an evil action of an individual or of a community can result in the breakdown of the cosmic order of heaven and earth.

[4] As Epictetus said: "The rational and the irrational are different for different persons, precisely as good and evil, and the profitable and the nonprofitable, are different for different persons." Epictetus, *Discourses*, 1.2.5. Transl. W.A. Oldfather. Cambridge, Mass.: Harvard University Press, 1925-1928.

[5] To show how my understanding of moral relevance differs from current, reductive definitions in moral philosophy, I quote here Hare's definition: "It is said that morally relevant features of situations or actions have to be specifiable without using individual constants, and that, instead, universally quantified individual variables have to be used in stating the moral principle which gives a feature its relevance." Hare 1989, 191.

life. Rather, it is the result of a pattern of reasoning of valid, culturally confirmed reasons to behave ethically and act morally. This way of thinking about ethics relates together two conflictual trends in moral philosophy, the descriptive and the prescriptive, of which the first requires an empirical verification of moral correctness in the world, and the other supports its thesis by referring to a universal, autonomous human reason which is the source of moral practice. If there are universal responses to ethical problems made by men in certain situations, this is because the phylogenetic, historical, or cultural problem setting (empirical aspect) or the culturally conditioned and formulated principles (prescriptive aspect) were similar in those cases.

If the above-developed argumentation is accepted, the question of the realism of ethics or morals does not make sense. Ethical convictions and moral actions, derived from reasoning patterns determined by a culture's worldview, are relevant and realistic in the given context in which they guide human conduct. This does not authorize one to speak of moral facts; there are facts, which are, or can be, morally evaluated and qualified but which cannot be designated as moral facts.

Relevance, contextuality and the corresponding realism in the ethical domain run, however, entirely against the mainstream view which poses as a *sine qua non* condition of any ethics the universality of ethical principles and moral judgements and practices. It is pretended that no ethics and morals can exist on a relativistic basis.[6] An ethical principle or a moral rule, in order to be considered as such must be universal or be considered universally acceptable for all humankind. It is evident that the claims of universal ethics and morality originated in a religious conception in which ethical claims and moral conduct were based on God's will and commandments. The old contrast between morality grounded in human nature and morality derived from social conventions was also based on the conviction that God implanted in humans the right inclination, guiding a person towards the good and away from evil.[7] However, in our secularized age the universality thesis cannot be maintained because its foundation in the belief in God has been forgotten in modernity. I think that Stuart Hampshire is correctly stating that

> Relativism only becomes a plausible doctrine when it asserts that the particular forms which justice, courage, friendship, self-control, intelligence take will always greatly vary, as cultures and social structures vary, and that there is no strict order of argument which proceeds from an independently acceptable premise to the conclusion that one of those embodiments of these essential virtues is to be preferred. As there is no Archimedean point of balance from which these embodiments, or concrete realizations, can be finally and conclusively judged in neutral terms, the fact that there is a rough convergence upon a common core of necessary virtues, abstractly conceived, is usually not relevant to practical decisions. It does establish that we can recognize different moralities as being moralities, through the common core at an abstract level, just as we can recognize different codes of manners as all codes of manners, and different systems of law as all systems of law, in spite of the varieties of them (Hampshire 1977, 44-45).[8]

Alasdair MacIntyre argued on the same lines and insisted on the embedding of ethical views and moralities as much as of various types of rationalities or patterns of reasoning, in traditions, ways of life, and social conventions. They are, therefore, incompatible or incommensurable. No universal rational standards

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[6] For example, Williams writes that "the central confusion of relativism is to try to conjure out of the fact that societies have differing attitudes and values an a priori nonrelative principle to determine the attitude of some society to another; this is impossible." Williams, Bernard, 1972, 21, 23.

[7] "Thus, if we detach morality from religion, we must reckon with a fundamental *heterogeneity* of morality. By this I mean that we have an allegiance to several different moral principles that urge independent claims upon us (we cannot plausibly see the one as a means for promoting the other) and so can draw us in irreconcilable ways. The ultimate sources of moral value are not one, but many. This heterogeneity holds, whatever our situation." Larmore 1987, 138; italics in original.

[8] Hampshire reaffirmed his position six years later: "There is no incoherence, or logical error, in combining a recognition of diversity with the belief that one's own morality, or one's own attitude to religion, is the only acceptable one. Even the second-order belief that God has implanted the correct moral convictions in one's mind and heart is not incoherent, considered by itself. But the fact that there exist different and incompatible moral beliefs, sincerely and thoughtfully maintained, is not to be denied, and the fact has to be accepted as a feature of morality." Hampshire 1983, 294.

exist in the orbit of practical reasoning, which could be used to evaluate and judge the plurality of ethical norms and moral behavior (MacIntyre 1988, 390-400 and 1989, 186-192). It is very true what Charles Larmore pointed out that it would be impossible to follow the paths of particular ways of life, involving efforts to achieve a good life in accordance with one's own substantive ideals, if we should always strive to do what is best for all mankind (Larmore 1987, 141).

As juxtaposition to my views on ethics described above, I shall shortly summarize here two totally opposite conceptions of moral behavior. The first is the Kantian autonomous and transcendent (in the sense he uses the word) human morality, and the second the empirical ethics of one of the great world religions, Buddhism.

Kant, in order to make ethical prescriptions universal and acceptable to all men, gave them a purely formal and normatively neutral character, ascribing ethical qualities to a sort of "idealized man" without flesh and bones.[9] In addition, to give his ethical considerations a truly universal foundation, Kant declared that the source of the ethical imperative is pure reason. This is a chimaera of the imagination, because there is no pure or nonpure reason but rather culturally determined patterns of reasoning. These patterns are given ingredients in any human being's life, and cannot be chosen, but only slightly changed by any individual. Kant's efforts, therefore, had an impossible aim: to detach ethical convictions and moral conduct from their contextual environment, and to derive them from a transcendent faculty of the human nature which controls bad instincts and evil emotions, as well as the evil will. As rational will has to be good in itself, without any heteronomous motives (including self-interest), the moral autonomy of man is founded in his autonomous reason and, consequently, in his autonomous will.

An interesting example of a culture with immanent or this-worldly ethics is Buddhism. The essence of its creed is a fundamentally ethical requirement. It is a non-theistic religion without a theological system and metaphysical speculations in the Western sense. Buddhism, therefore, is founded on the ethical behavior satisfying the prescriptions given by *Gautama*, the founder. Buddhist morality concentrates on self-development in the shadowy existence of this world, or, in other words, its main aim is the maximum development of man's inherent capacities by himself. The earthly existence is a strictly temporary one. It is an existence from moment to moment, in which human beings make infinitesimal changes in infinitesimal intervals, though each moment, beside having its own fresh content, virtually or potentially contains the past, each moment referring backward *ad infinitum*. This gives the illusion of sameness of one's self, although it does not reflect an individual identity as the self is simply identical with the contents of its momentary awareness, it is a collection of qualities and an aggregate of functions without constituting a substance (the impermanence of all things, *anicca*). In consequence, the core Buddhist doctrine is *anatta* – there is no self, no soul, non non-self, and no true substance in man.[10] Individuals have to endeavor to free themselves from the unreality and emptiness of the self-concept and through their efforts obtain deliverance from this bondage. This is the sum of Buddhist ethics[11] implying, to a certain extent, that man possesses free will. Human existence is an opportunity for genuinely ethical behavior in favor of the morally good – deliverance – against the morally bad - indulgence in illusions. It has to be added, *in fine*, that deliverance and karmic rebirth are mechanical based on an externalized morality of merit, in sharp opposition to the ethical teachings of cultures centered around monotheistic religions in which ethical deliverance is never mechanical.

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[9] The formal principle or maxim, for example, that "one has to carryout one's duty whatever that duty may be" is, of course, universally valid, there is no culture in which it could be negated. But is this a really ethical principle giving moral guidance in everyday life, and, particularly, in the great decisions of life?

[10] "Without this teaching of *anatta*, or Egolessness, there is no Buddhism; and without having realized the truth of egolessness, no real progress is possible on the path to deliverance." Mahathera Nyanatiloka, "Egolessness." *Light of the Buddha*, January 1958, 3: 4.

[11] "The present moment, the psychological 'now', is the key point of moral progress and discipline. Its proper use contains the hope of ethical perfection and ultimate liberation in *Nibbana* [*Nirvana*]. The past cannot be altered for *Kamma* [*Kharma*] carries every thought, word, or deed to its ultimate fruition, good or bad; and to a great extent my present existence is filled with and determined by my past. Yet each moment is also new and contains elements of freedom within that newness. The present moment is the **only** moment in which kammic process can be directed or ultimately escaped. And since all past *Kamma* was once present *Kamma*, every man has the power to achieve his own perfection lying within his control for the full length of his life as a human being; every new moment of existence presents a new opportunity to build good future Kamma." King 1964, 19; italics in original.

2. Ethics in Relation to the Community and the Individual

My own views about principles of ethics and moral practices are closely linked to the image of man as an organic being whose ability to transcend the immanent existence through his mental and spiritual capacities makes him unique in the cosmic world. As a consequence, ethics and morals are the outcome, on the one hand, of the evolving belief- and value-systems and of the life experiences of successive generations, and, on the other hand, of the interaction between individual and community during the life span of each generation.[12] In the ethical/moral perspective defended here, the environment as object of ethical considerations is included among the moral duties of man, being-in-the-world. This conceptualization of the ethical and moral is infrequent, therefore I shall review in this section representative examples of two great groups of thinkers, those who saw ethical conduct as originating in the community's heritage, and those who were convinced that moral action must be congruent to the individual's utilitarian interests as autonomous being. Both trends were also divided between those who were protagonists of the conception that ethics is a result of man's rationality and those who believed that reason has nothing to do with morals, only with human feelings and emotions.

First, the view that ethical convictions and moral action concern public space and are closely embedded in the community's life[13] was most forcefully represented by Hegel. *Sittlichkeit* means that members have moral obligations towards their specific community in accordance with established norms and practices. By their moral conduct people reinforce the already existing ethical structures and institutions of the community's life. There is no *Sittlichkeit* outside a community through which the apparent breach between *is* and *ought* is dissolved. Thus, the culturally conditioned ethical norms and moral practices strongly influence individual experiences, and determine the situation of an individual and contribute to the formation of his identity. It is, then, natural that in the Hegelian perspective the phenomenon of alienation appears when activities in the public space of society lose their importance for individuals who confess less and less allegiance to their community or society and to whom public attitudes and practices seem irrelevant from their own point of view. Alienation (in the Hegelian and not Marxian sense) is a distancing oneself from reality and, perhaps one would say today, is certainly narcissistic as an attitude.[14]

A modern representative, however, with a very different conception of a socially or public-oriented ethics is Bernard Gert. In a somewhat legalistic way, Gert conceptualizes morality as unchanging and unchangeable, independent of individual wills (similarly to the laws of logic): "Morality is a public system applying to all rational persons governing behavior which affects others and which has the minimization of evil as its end, and which includes what are commonly known as the moral rules as its core" (Gert 1988, 6). These rules are there, and they have to be discovered or inferred but must be known to all persons. Moral judgements apply only to those actions, which concern a moral ideal or moral matter, and are covered by a moral rule. Moral rules or standards are therefore universal[15] (in opposition to legal provisions), and are applicable, without exception, to "all persons with the relevant voluntary abilities" (ibid., 67). Such a formulation shows that Gert is not a utilitarian. This feature of his ethical conception is even reinforced by the argument that the aim of moral rules is to prevent men from causing evil and not to promote good. Thus, Gert is also not an Aristotelian who believes that morals have to guide humans towards a good life.

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[12] "Inside the general structure or web of human attitudes and feelings of which I have been speaking" wrote Strawson a quart of a century ago, "there is endless room for modification, redirection, criticism and justification. But questions of justifications are internal to the structure or relate to modifications internal to it. The existence of the general framework of attitudes itself is something we are given with the fact of human society. As a whole, it neither calls for, nor permits, an *external* 'rational justification'."Strawson, P.F. *Freedom and Resentment*. London: 1974, 23.

[13] Durkheim wrote in his *Sociology and Philosophy* that "Kant postulates God, since without this hypothesis morality is unintelligible. We postulate society specifically distinct from individuals, since otherwise morality has no object and duty no roots." Durkheim, Emile, *Sociology and Philosophy*. Transl. by D.F. Pockock. London: Cohen & West, 1965, 51-52.

[14] For a good overview of Hegel's conception of *Sittlichkeit* as the essence of ethics, see Taylor, Charles, 1979a, 83-94.

[15] "If a rule applies to any group smaller than the class of all rational persons it is not a moral rule. The universality of the moral rules means that unlike almost all other rules they apply to all those who can understand them and guide their actions accordingly." Gert 1988, 69.

As far as rationality or irrationality is concerned, Gert's action-oriented theory does not consider them as a human faculty but as our vocabulary in talking about fundamental normative judgements. Irrationality is more basic for him than rationality because our judgement of an act as irrational implies its condemnation, whereas a rational action may have alternatives which all satisfy the rationality postulate.[16] Nevertheless, rationality can never be equated with rational self-interest and should never be taken as a guide for moral conduct. The qualification of actions as rational or irrational always depends on the mental faculties and the degree of information of a person, but should not be decided on the basis of a (not moral) rule or custom. Therefore, "reasons for acting are conscious rational beliefs that can make rational what would otherwise be an irrational action" (ibid., 34). He qualifies this statement by saying that reasons for acting in a certain way are not necessarily adequate reasons in the moral sense (while he recognizes that it is most difficult to decide what is an adequate reason for a certain action). Finally, in Gert's eyes, impartiality does not have the same crucial importance as, for example, in Rawl's ethical theory. He does not admit the Rawlsian annihilation of individuality required by the "veil of ignorance," but affirms that an impartial person can have his own views on the quality of moral conduct or ethical action, on the condition that in his moral judgement the person does not take into account what the effect will be on those it concerns.

Another version of a community-based ethical approach is Jürgen Habermas' discourse or communicative ethics. In the dialogical community of Habermas – a legitimately ordered whole of interpersonal relations – the orders of existence, with which one can either be in conformity or from which one can deviate, are constituted by the normative validity claims themselves (whereas the natural orders are constituted independently from cognitive validity claims). These validity claims must be right in the given states of affairs or in the given cultural context that consists of intersubjectively shared traditions.[17] The general validity of normative expectations (ethical values and moral practices) are discursively redeemable and discursively, but not monologically, revisable. The community-wide purchase of a claim, mandatory for all members, is reinforced by its impersonal nature. In Habermas' view, as much as in most contemporary moral theories, impartiality is linked to universality, but universality in a community concerns the plurality of participants in the discursive exchange of views based on pragmatic presuppositions, to which all affected are admitted (Habermas 1990, 65). The Habermasian moral principle of universalization, then, is much more restrictive than the universalism of Hume or Hare, while embracing the whole mankind. Thus, discourse ethics is in reality a formalistic, procedural ethics, as Habermas himself recognized it:

> The principle of discourse ethics makes reference to a *procedure*, namely the discursive redemption of normative claims to validity. To that extent discourse ethics can properly be characterized as *formal*, for it provides no substantive guidance but only a procedure: practical discourse. Practical discourse is not a procedure for generating justified norms but a procedure for testing the validity of norms that are being proposed and hypothetically considered for adoption. That means that practical discourses depend on content brought from the outside. It would be utterly pointless to engage in a practical discourse without the horizon provided by the lifeworld of a specific social group and without real conflicts in a concrete situation in which the actors consider it incumbent upon them to reach a consensual means of regulating some controversial social matter (ibid., 103; italics in original).

This description of discourse ethics explains its substantively contextual character – it is a procedure to find the best ways to have a good life in given circumstances. In this sense, Habermas' concept of ethics and

[16] Gert gives a good example of how he distinguishes rationality from irrationality: "Death has no degrees. It seems to be never irrational to want not to die, even when it is rational to want to. Although it may sometimes be rationally allowed to want to die, it never seems rationally required. This means that it is never irrational to desire to live even though there may be circumstances, e.g., painful terminal cancer, when it would not be irrational to want to die. In general, most of our actual decisions are those in which it would be rational to act in either way." ibid., 38.

[17] "Just as someone interested in a theory of knowledge cannot adopt a standpoint outside his own cognitive acts (and thus remains caught in the self-referentiality of the subject of cognition), so too a person engaged in developing a theory of moral argumentation cannot adopt a standpoint outside the situation defined by the fact that he is taking part in a process of argumentation (e.g., with a sceptic who is following his every move like a shadow). For him, the situation of argumentation is as inescapable as the process of cognition is for the transcendental philosopher." Habermas 1990, 81.

moral is the closest to my own conception as it is, in a limited way, universalist in form, but contextualist in content.[18]

Second, the mainstream philosophy in modern times attributed ethical or moral behavior to individuals' inclinations, rationality or innate tendencies. Kant classically formulates the individualistic-rationalist concept of ethics in a formal way and a neutral mode, without substantive content. In his austere effort to relate all ethical ideals and practices to man's transcendent faculties, Kant even rejected the human strive towards happiness as an empirically motivated and not a rational desire (Kant 1964, 86 and 1985, 27). Hume, for whom ethics was equivalent to justice, made it clear that, in his mind, the attribution of good and evil obeys to an innate feeling in each individual and has nothing to do with reason. The moral feeling is a universal characteristic of the entire species. He was also convinced that ethics is principally concerned with public utility, the "true interests of mankind," but only because it is in the individual's well understood interests[19] and gives him a "pleasing sentiment of approbation" (Hume 1966, 5, 12, 126-127, and 129). Thus, Hume can be said to promote an evidently utilitarian standpoint (ibid., 126-127).

The emphasis put on social or public utility when it is only a question to add up individual interests to arrive at such common utility, is as much deceptive in all utilitarian trends of thought as in Hume's moral philosophy. Harsányi expressed well the core content of an all-embracing utilitarianism: "Maximization of social utility [is] the basic criterion of morality – social utility being defined either as the sum, or the arithmetic mean, of the utility levels of all individuals in the society" (Harsányi 1982, 40). Thus, social utility is defined in terms of individual utilities and, in turn, these individual utilities are defined in terms of the true or real (as opposed to the publicly observable) personal preferences of those concerned. True preferences presuppose that the person holding them was fully informed of all relevant aspects of the matter, and that he reasoned in a state of mind "most conducive to rational choice" (ibid., 55). Harsányi's utilitarianism, therefore, concerns only rational wants and preferences, as the irrational ones cannot supposedly be useful for the public by definition. Thus, anti-social preferences, for example, are not taken into account in calculating social utility. As a consequence, he calls his version of utilitarianism, preference utilitarianism[20] as opposed to, on the one hand, nineteenth-century hedonistic utilitarianism (pleasure and pain principle) and, on the other hand, idealistic utilitarianism (utility being a function of mental states of intrinsic worth).

A development of the utilitarian position in another direction was consequentialism, which focuses on the choice of actions in accordance with their consequences or outcomes, neglecting the indispensable evaluation of the processes of choice. If these consequences are defined in terms of welfare, we get welfare consequentialism adding up aspects of individual welfare or utilities by abstraction (guaranteeing the respect of the rationality requirement) and an arithmetic sum-ranking procedure (Sen, and Williams 1982, 4). Other forms of utilitarianism such as rule- or disposition utilitarianism are as well based on the amounts of the impersonal utility or disutility generated. The dehumanizing tendency in such utilitarian tendencies, in opposition to Harsányi's preference utilitarianism, is shown by Sen and Williams when they write: "Persons do not count as individuals in this any more than individual petrol tanks do in the analysis of the national consumption of petroleum" (ibid.). Personal autonomy, of course, does not count either. In this sense, consequentialist utilitarianism opposes methodologies that base the valuation of utilities on choice and define the content of a utility in terms of self-interest or well being – ambiguous terms together with what one calls individuals' revealed preference (ibid., 12).

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[18] "In the back of Hegel's mind was a theoretical question that is rather more difficult to answer: Can one formulate concepts like universal justice, normative rightness, the moral point of view, and the like independently of any vision of the good life, e.g., independently of any intuitive project of some privileged but concrete form of life? Noncontextual definitions of a moral principle, I admit, had not been satisfactory until now." ibid., 205.

[19] Hume thought that it is an obvious truth that "as every man has a strong connexion with society, and perceives the impossibility of his solitary subsistence, he becomes, on that account, favourable to all those habits and principles, which promote order in society, and insure to him the quiet possession of so inestimable a blessing. As much as we value our own happiness and welfare, as much must we applaud the practice of justice and humanity, by which alone the social confederacy can be maintained, and every man reap the fruits of mutual protection and assistance." Hume 1966, 49.

[20] "Preference utilitarianism is the only form of utilitarianism consistent with the important philosophical principle of *preference autonomy*. By this I mean the principle that, in deciding what is good or what is bad for a given individual, the ultimate criterion can only be his own wants and his own preferences." Harsányi 1982, 55; italics in original.

Of the many critics of utilitarian (single-dimension or one-issue) morality I shall only mention here Charles Taylor who is convinced that ethical principles and moral practice are "carried within a community" and are, therefore, frequently incompatible if not incommensurable (Taylor, Charles, 1982, 131). He criticized the formalism of all utilitarian (as well as rationalist) moral theories:

> But, I want to argue, the price of this formalism, as also of the utilitarian reduction, has been a severe distortion of our understanding of our moral thinking. One of the big illusions which grow from either of these reductions is the belief that there is a single consistent domain of the 'moral', that there is one set of considerations, or mode of calculation, which determines what we ought 'morally' to do. The unity of the moral is a question, which is conceptually decided from the first on the grounds that moral reasoning just is equivalent to calculating consequences for human happiness, or determining the universal applicability of maxims (ibid., 132).[21]

R. M. Hare, relates moral judgement to a rationalist standpoint and bases on this rational judgement his prescriptive and, consequently, universalizable utterances. Impartiality is the natural outcome of this rational position because giving equal weight to the equal interests of all, including possibly oneself (therefore meaning a menace to one's own interests), will have to exclude all possible partiality (Hare 1989, 215). It is striking that Hare, as all other rationalist and utilitarian ethicists, unreservedly supposes that any moral practice must legitimate the egoistic, instrumental-purposive rationality, and has recourse to very specious arguments, as a result, in order to neutralize egoistic moral action. In addition, Hare is also a utilitarian; he intends to "maximize the total benefits over the entire population,"[22] coupled with a so-called prudential rationalism. Through this strategy of universal prescriptivism, he intends to avoid the pitfalls of utilitarianism in terms of interests because it is most difficult to determine what are somebody's true interests in general, and what are they in different time dimensions and under different viewpoints. Therefore, he calls his own moral theory as universalistic act-utilitarianism (equivalent to specific rule-utilitarianism), which reflects the result of critical thinking leading to right actions.[23]

3. The Ethics of Freedom

Freedom is the highest form of ethical values and moral norms. To be free is to be moral, and unfreedom is the total lack of ethical perspective. The question is, however, why is freedom so highly placed in the framework of an ethical reflection and moral practice? My answer is that *ethical freedom means to live in accordance with one's own idea of the good life, in accordance with one's own principles and one's own choices*. But this dialectical concept of freedom has to be qualified on the lines developed in the preceding section: as a person's life is entirely embedded in his own community – his identity, his ideas, his passions, and his interests are situated in a given 'world'[24] – and his whole life is embedded in the natural environment,

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[21] One of the best criticisms of utilitarianism was recently given by Russell Hardin who wrote: "A common misconception is that utility is inherent in objects or states of affairs, that it is somehow objective. While there are obviously objective correlates of most claims for utility, utility is a coherent notion only at a subjective level." Hardin 1988, 170.

[22] "I shall promote the interests of the parties most, while giving equal weight to them all, if I maximize ther total benefits over the entire population; and this is the classical principle of utility. For fixed populations it is practically equivalent to the average utility principle which bids us to maximize not total but average utility; when the size of the population is itself affected by a decision, the two principles diverge, and I have given reasons for preferring the classical or total utility principle. In these calculations benefits are to be taken to include the reduction of harms". Hare 1989, 215.

[23] Hare distinguishes good from right actions: "The latter is the action in accordance with critical principles arrived at by exhaustive, fully informed, and clear thinking about specific cases. A good action is what a good man would do, even if not right." ibid., 225. But who is a good man and what is a good action?

[24] My formulation is different in emphasis from the one given by Wellmer who affirms that individual freedom "must have a *communal* character." "The original locus of freedom, then, would not be the isolated individual, but a society that is the medium of individuation through socialization; freedom would have to be thought of as ultimately residing in the structures, institutions, practices and traditions of a larger social whole. But since this larger social whole is what it is only

which is ours, thus *the freedom of a person has to be integrated into the freedom of his community and into the natural framework beyond our control*.[25] The concept of freedom, therefore, has to be examined at two levels: the individual and the communal. In order for a person to be able to live a good life in harmony with his inclinations, – in freedom, – that person has to insert himself, so to say, in the freedom of the community's life. And for a community to live in freedom, its members have to aspire to live their life in complete freedom, that is, they have to willingly and voluntarily strive and fight for their community's freedom in order to be themselves free to live a good life as they desire it. In my conception, freedom and good life presuppose justice and equity, but not human and social equality. Personal freedom is out of reach for an individual outside a community, which ensures the necessary conditions for freedom and good life. This is an important point to note because, with the advent of modernity, it became a dogma that only an individual can have freedom in accordance with his wishes and will, not being dominated by the traditions of the old and by the ethical precepts accumulated by preceding generations. In this sense, there is only personal freedom. The individual is supposed to create his own, free world for his own self-development without having to pay whatever attention to the others and their desires and inclinations.[26] But this is a devastating illusion which leads to a slavery in the service of the multiple and dangerous powers of our world.

Both at individual and communal levels, the first of basic freedoms is the freedom of choice. This does not mean the procedure of choice, but the substantive choices made by individuals, and these choices may, not infrequently, be the wrong ones. As Kolakowski pointed out: "Freedom fatefully does include not only the capacity of doing evil; it implies that evil cannot be eradicated" (Kolakowski 1990, 46). The second of basic freedoms is to know the limitations and potentialities of one's own as well as those of the community one belongs to, that is, it means to recognize the existence of legitimate and illegitimate necessities and constrains in human life. This basic freedom makes possible conscious moral action, a genuine and realistic ethics given the circumstances of the world we live in. The third basic freedom is the freedom to participate in the community's life, especially in the decisions, which have consequences for all. The freedom of participation is essential from the point of view of personal freedom because it is this that makes impossible what we call alienation. An alienated individual in society is not free – despite contrary appearances. Common decisions are only possible, as Hegel also saw it, if there is an underlying common purpose to the decisions taken by the whole community. Such a common ground is not homogenization, and cannot be created by command, because it stands for a genuinely shared culture. Participation does not create such a consensus but depends on it.

It is a fact of human existence that freedom and unfreedom always exist concurrently. Freedom is the consequence of human transcendence, of being able to put ethical values and moral norms above interests and evil inclinations both in an individual as in a community. Unfreedom is due, first of all, to natural necessities and constrains which move along the laws of an unchangeable causality; but, second, it is also due to the accumulated results of human actions and unintended consequences, the forces of history, or of certain sequence of events, uncontrollable by communities and persons living in a certain age. Finally, unfreedom is the result, very frequently, of evil dispositions and consecutive immoral actions of certain individuals who can deprive their contemporaries, sometimes entire populations, of the possibility to attain the ethical ideal of good life. Thus, freedom means also fear as Zygmunt Bauman well pointed out:

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thorugh being kept alive, 'reproduced', and interpreted by the individuals who are part of it, individual and 'public' freedom now become inextricably intertwinned." Wellmer 1989, 228-229; italics in original.

[25] This was also Hegel's opinion as Charles Taylor summed it up: "What is common to all the varied notions of situated freedom is that they see free activity as grounded in the *acceptance* of our defining situation." Taylor 1979a, 160; italics in original.

[26] One of the extreme examples of this standpoint is given by Gould: "Individual freedom is toi be understood not only as a capacity for free choice but also as an activity of self-development. As will be seen, this entails the equality of all individuals insofar as they are all equally agents... Human beings create and transform their own natures in the course of their activity. Their nature is therefore not fixed but self-transforming. This very capacity of self-transformation in activity will be seen to be the ground of value... The reality which our moral beliefs and judgements are concerned with is here taken to be a social reality constituted by intentional and interacting human beings... The act of choice thus necessarily affirms its own value in the act of choosing... Thus the capacity for choices becomes concretely realized in the self-development of individuals which thus constitutes the meaning and the value of freedom in the full sense. Self-development may therefore be seen as the highest value to which a process of individual acts of choice tends." Gould, Carol, 1988, 25, 128 and 130.

> Choice is, therefore, the gateway through which finality enters the open-ended and hopeful human existence: choice is the point at which the unnegotiable past gets hold of the amenable future. The experience of freedom is, therefore, an inexhaustible source of fear (Bauman 1976, 29).

Among the uncertainties of this world, facing innumerable and difficult choices, among limitless constrains and limited potentialities but also possibilities of ethical transcendence and moral victories, lives of individuals and of communities meet the ultimate finality of existence: the inevitable death.

CHAPTER TEN

THE ULTIMATE TRANSCENDENCE: HUMAN FINITUDE

With death human life comes to full circle. The biological and cultural evolutions of man converge in it towards a common end, which from this side of the river (as the Buddhists would say) appears as total annihilation. In this respect, one has to recall that for some biologists and philosophers man's death-awareness is the characteristic which uniquely distinguishes our species from others because through this capability the ultimate finitude of existence became part of man's self-consciousness. In the course of human history death – as an empirical event, – the disappearance of whole civilizations – a historical phenomenon, raised many more unanswerable questions, and inspired more awe, than the coming into the world of a human being representing a new generation, or the birth of a new cultural constellation, of a new civilization.[1]

Thus, it is natural that the epilogue to this anti-Faustian study in philosophical anthropology should end with an evocation of the finitude reflected by the inexorable end of human life, which overshadows our entire earthly existence. It explains why all religions, in what ever modes and with whatever expectations, are centered on the two major determining aspect of that existence, the destructive power of evil – of which not even ethical norms and moral conduct can save humans – and the salvation of men from disappearing into the bosom of mother-nature. The consolation for the awareness of our finitude can be religious or the profound feeling of oneness with the universe. Death, in this sense, is a rejoining of cosmos from where we came from and, therefore, death-awareness must, in every normal being, heighten the consciousness of our ties with nature with which we are bound together forever.[2]

Human finitude, in this perspective, conditions the overall meaning of the world and of human existence, in the Wittgensteinian sense that the meaning of the world and of life must be found outside of the world.[3] The main vehicle of the consciousness of finitude is time. Human reasoning and human efforts are only capable of transcending temporality or, for that matter, other aspects of existence such as space, substance, or causality, through religious faith, mythical worldviews, or moral experience, which lift the unsurpassable limits of earthly finitude. Myths existed since the beginning of human history and their main function was to master the arbitrariness experienced in the world[4] and to give meaning to it. Myths obtain in the culture in

[1] It is useful to note here Franz Borkenau's informative definition of a civilization is: "A civilization is essentially a bundle of closely correlated beliefs and rules of conduct on the basis of which various communities act and interact. Now these beliefs and rules at bottom constitute social choices, and hence always lead to the adoption of one style of life to the exclusion of others. They may imply the rejection of whole areas of human possibility that in themselves are as justified or even more attractive than those actually adopted. But debate about this must be halted at some point or other in order to make the accepted rules valid and binding. To invest them with such validity, they are legitimized on a basis supposedly, but never really, unchallangeable." Borkenau 1981, 52.

[2] Kolakowski makes a pertinent remark in this sense: "Respect for the dead and for the living and for life itself – are inseparable... To the extent that rationality and rationalization threaten the very presence of taboos of our civilization, they corrode its ability to survive." Kolakowski 1990, 13.

[3] It is striking that even Monod, the agnostic scientist, acknowledged the importance of man's existential anxiety which, in the search for the meaning of existence, created the need of mythical explanation: "That same disquiet has created all the myths, all the religions, all the philosophies, and science itself. That this imperious need develops spontaneously, that it is inborn, inscribed somewhere in the genetic code, strikes me as beyond doubt." Monod 1971, 167.

[4] "Myth is a way of expressing the fact," wrote Blumenberg, "that the world and the powers that hold sway in it are not abandoned to pure arbitrariness. However this may be signified, whether by a separation of powers or through a

which they were born an overwhelming significance, defining the status of reality (Blumenberg 1985, 67-76). They are born out of the awesome feeling of the sacred, of a transcendent reality, and their fundamental value is reconfirmed, periodically, by rituals.[5] For Mircea Eliade the "eternal repetition of the same thing" is not the sign of a "total cultural immobility," but a trust inspiring belief as the "eternal recurrence of the same always was" (Eliade 1975, 140). Myths, however, never tend to salvation, to the betterment of the human character and existence, to change the prevailing conditions and circumstances. Myths are expressed in symbolic forms and through tropes and metaphors reflecting reality. They are usually conceived in a cyclical way that, through neglecting the space-time dimension, eliminate the historical perspective, always inspire trust in respect of the present and the future, though "the concept of reality as momentary evidence includes disparate modes of certainty" (ibid., 236). As trust-inspiring spiritual experiences, myths, in Cassirer's explanation, are linking the individual to the human community and to the totality of cosmos:

> For here again the individual feeling and consciousness of self stand not at the beginning but at the end of the process of development. In the earlier stages to which he can trace back this development we can find the feeling of *self* immediately fused with a definite mythico-religious feeling of *community*. The I feels and knows itself only insofar as it takes itself as a member of a community, insofar as it sees itself grouped with others into the unity of a family, a tribe, a social organism. Only in and through this social organism does it possess itself; every manifestation of its personal existence and life is linked, as though by invisible magic ties, with the life of the totality around it (Cassirer 1955, 2: 175; italics in original).

Death is the supreme mark of discontinuity and rupture in human existence, and this is probably the reason why in modernity, because of the fear of such an overt appeal of our finitude, "the dead ceased to exist" (Baudrillard 1993, 126). The flight from finitude caused our contemporaries to consider that "it is not normal to be dead," whereas in all history dead were venerated as members, although gone forever, of the community (ibid.). It is, on the one hand, clear that human finitude, manifested in death, is a biological fact, which puts a term to the existence of an individual. But, on the other hand, death is also construed by human communities as a cultural and social event which, through religious, mythical, or cosmic feelings and convictions, becomes an integral part of human existence, uniting in the community all those who parted already, who live in the present, and who are expected to come in the future. In this way, finitude and death lose their menacing aspect. Finitude becomes an accepted reality, a recognized features of man's life, and death is nothing else than a momentary event in the cosmic framework in which we all live and participate. It is in this sense that death becomes the final and ultimate transcendence of man's existence in the cosmic world when it reintegrates the great Being from which it was born. Nature.

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codification of competences or through a 'legalization' of relationships, it is a system of the elimination arbitrariness." Blumenberg 1985, 42-43.

[5] "Recollection and re-enactment of the primordial event help 'primitive' man to distinguish and hold to the *real*. By virtue of the continual reception of a paradigmatic act, something shows itself to be *fixed* and *enduring* in the universal flux. This periodic reiteration of what was done *in illo tempore* makes it inescapably certain that something *exists absolutely*. This 'something' is 'sacred', that is, transhuman and transmundane, but it is accessible to human experience. 'Reality' unveils itself and admits of being constructed from a 'transcendent' level, but this 'transcendence' can be ritually experienced and finally becomes an integral part of human life." Eliade 1975, 139-140; italics in original.

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