

Małgorzata Czarnocka

METAPHILOSOPHICAL FOUNDATIONS OF THE PROBLEM OF THE LOADING OF SCIENCE BY CULTURE

ABSTRACT

The present essay outlines the metaphilosophical foundations necessary for an analysis of science's dependence on culture. It shows that the matter cannot be approached on a purely objective level as all studies and conclusions are perforce relativized by adopted cultural and scientific norms. The multifariousness of science and culture—which lies at the root of the whole problem—results in a broad network of relations between the two.

The enclosed studies on the loading of science by culture lead to rather integristic conclusions as to the essence of culture. This integristic position is in a sense a “third road” halfway between the two known radical approaches—one proclaiming that culture is totally diversified, the other that it is one. The “third path” underscores the universal fundament of culture in all its varieties and views science as universal despite its cultural load and the diversity of existing cultures—precisely because of its rooting in this fundament.

Key words: science versus culture; culture's universality; culture's ethnicity; third road's view on culture; metaphilosophical foundations of loading science by culture.

INTRODUCTION

Culture's influence on science is a broad and complex study field which is also dually determined: all questions and answers are dependent both on accepted (and frequently coexistent) cultural standards and accepted scientific norms (which differ according to the philosophy underlying scientific research). Therefore, studies of culture's impact on science mainly take place on the metaphilosophical level, where metaphilosophical decisions about which cultural and scientific concept to choose determine solutions on the objective plane.

HISTORY

Viewed neutrally and as a problem to resolve rather than one resolved negatively *ex ante*, the loading of science by culture is, in fact, a field quite new to philosophy, its “newness” lying exactly in the initial non-assumption of its negative resolution. As a mostly negatively resolved issue, however, it was present in modern-day epistemology at least since Francis Bacon. As in many other cases, its beginnings can be traced back to the antique, notably Plato’s merciless juxtaposition of philosophers (for whom alone he reserved the right to seek and attain truth) and artists (understood as all creators of art).

In philosophical history the problem of culture’s influence on cognition—or the absolute subjugation of cognition to culture—was never a subject of unbiased reflection, a theme for discussion in which solutions are sought without initial declarations which predetermine the result. Here the negative resolution was accepted as an initial axiom and the basis for constructing cognitive operations and values.

Epistemology’s anti-cultural approach was also determined by the specific construction of the subject of study. The influencing of science by culture—probably understood mainly in the ethnographical sense—was considered unacceptable and rejected on the strength of binding and aprioric scientific correctness norms. Throughout modern times the cognition subject was identified with rational awareness. Cultural influence uncompromisingly and undebatably excluded a subject from the cognition process, especially in the case of scientific cognition.

Guarded by traditional epistemology as a superior value underlying all others, the autonomy of the cognition sphere is the reason why all influence on knowledge classified as external is viewed as a violation of the normal (correct) functioning of the cognitive process. Considered incidental and alien to the essence of knowledge, such influence was seen as unconstructive, unnecessary and basically destructive to cognition. Cognition’s fundamental autonomy was recognized by modern epistemology and has survived to this day in contemporary rationalistic cognition theories. It excludes all outside influence on credible knowledge. This in turn leads to negative views on culture’s influence on science. It was usually maintained that cultural influence, considered external to cognition, was in fact destructive and imbued the cognition process with elements that were basically alien to it. These elements, it was maintained, had a degrading—or even totally annihilating—impact on cognition.

The elimination of outside influence, including cultural, was considered a priority task tied to the protection of rationality and non-dogmatism. Only autonomous, exclusively mind-driven cognition cut off from all cultural deformation, myth, custom and prejudice could be rational (a belief still shared by many philosophers today). The presence of cultural factors in the cognition process was seen as irrational and a violation of rational cognition principles.

The mind was seen as absolutely a-cultural.¹ Provided it noticed culture at all,² modern epistemology considered it to run against reason. Although culture was neither researched nor explained, it was generally considered to be the source of all irrational forces. The arbitrariness with which culture was branded irrational without a word of clearance resulted in the merciless eradication of all cultural influence from cognition, which was to function as an independent sphere and the only source of truth. Culture was seen to generate only falsehood and illusion.

There is no clarity as to whether the character of culture-loaded cognition is rational or irrational, as the character issue immediately brings us in a straight line to culture. Are all cultures irrational? Or rational? If not, what are the determining factors underlying rational cultures? Is there any point in defining culture as a whole as rational or irrational? It seems that today such definitions function mainly in the sphere of ideology. The rationality ascribed to western culture is supposed to prove its superiority and civilizational advancement. Not all cultures, however, view rationality as a priority value. Neither, over certain periods, did western culture—a fact especially visible in the Middle Ages, when the fundamental value was faith in Christianity and God (despite late-Medieval philosophy's attempts to rationalize faith, undertaken especially by Tomas Aquinas). Also Romanticism was a culture founded upon faith in emotions and contemptuous of the mind, which it viewed as "narrow and cold".

Even if the rationality/irrationality issue were resolved, this would still leave unanswered questions about the rationality of culture-loaded cognition. Not all cultural elements inherent in cognition make it irrational as culture in the broad sense also embraces language and sundry forms of cognitive representation and creation—in other words, the factors necessary for cognition. Otherwise all cognition would be irrational because of its cultural content (e.g. language).

Traditional cognition theories maintained that cultural influence was alien to cognition and could be pinpointed and eliminated. The best-known of these theories is Francis Bacon's idol theory, according to which some types of idols function as unique illusions of the mind and today could justifiably be classified as "cultural". The cultural determinators here are idols of the cave, the market and the theatre. These cultural elements may be seen as "added on" to cognition proper and not penetrating very deeply into its structures.

Modern philosophy's culture concept, mainly authored by Descartes,³ differed considerably from theories anthropologists (especially today) tend to as-

¹ Also, considering that most major rationality theories did not view the mind as a material object, one may say that it occupied a unique ontic sphere beyond culture and nature.

² And if it did, it was usually at least in part covertly, without as much as a set of relevant concepts for the easier and more creative formulation of statements and interpretations.

³ Like many of his other theories, Descartes' culture concept strongly influenced his successors.

cribe to culture. Cognition, on the other hand, is commonly related to the modern-day (Cartesian) sense of the term.

From the standpoint of contemporary anthropology the modern culture concept focused on culture's secondary features with culture itself viewed as a set of patterns and customs.⁴ Descartes was not interested in the patterns and customs of any given culture, but most probably sought that what made patterns and customs a part of all ethnic cultures (although it must honestly be said that his writings bring no conclusive confirmation to this effect). Patterns and customs are very distinct and self-imposing cultural phenomena and belong to culture's superficial sphere, which makes them easily detectable.

From the perspective of cognition Descartes saw culture as a set of invariably destructive behavior canons and patterns which led away from truth and deformed knowledge. According to Descartes cultural canons, patterns and customs usually drove human behavior in the wrong direction. This leads to the conclusion that culture creates no scientific method, no reasoning rules and no image patterns, and poses no cognitive goals or values. Descartes theory about the separateness and juxtaposition of culture and cognition stems from his narrow, "ethnographical" understanding of culture. Moreover, in his studies of ethnic cultures Descartes only sought differences, unique features and curiosities, which suggests that his interest in other cultures was driven by a fascination with the exotic, with all that he could not encounter in his own culture, all that he could experienced for the first time as something unexpected and unusual. Indeed Descartes' day was marked by the discovery of new, exotic peoples, customs and worlds very different from ours. Amidst this fascination with difference and in face of the narrowness and limitations of our own everyday experience, ethnographic culture was primarily (or, perhaps, exclusively) a reservoir for the separateness and distinctness of customs.

Thus, Cartesian rationalism and individualism are closely related: that which is collective and custom-bound is irrational. Cognition belongs exclusively to the individual subject. Hence, overcoming irrationality and collective custom is tantamount to eradicating errors generated by culture. Here culture is a kind of recurrent error induced by society and accumulated over history.

If we accept the view of culture that was typical for Descartes' day—namely as a collection of specific, exotic customs, rites, myths, religions and patterns imposed by tradition and of unknown origin and validity, it is easy to agree with Descartes that culture should be separated from the activity of the mind. It is also easy to admit that especially pronounced cultural customs and patterns deform or bar access to truth as they are imbued with knowledge-alien superstition, irrational beliefs, and traditional lore deformed by multiple transmission.

⁴ Descartes' part in the emergence of modern philosophy's culture concept is well outlined by Gellner. Cf. Ernest Gellner, *Reason and Culture. Historic Role of Rationality and Rationalism*, Blackwell, Oxford—Cambridge (USA), 1992, p. 2.

Because of its narrow understanding of customs and patterns as specific for given ethnic cultures, rites and tradition, the Cartesian culture concept ignores the fact that some customs and patterns are crucial for cognition. Cartesian culture theory is not essentially different from the commonplace view of culture, although it is narrower as it leaves no room for broadly understood art. Cognition's image changes when we begin to view its action patterns and canons more broadly than Descartes—as an organizing force over all human activity not stemming from inborn biological instinct. After all, the method of cognition is a unique pattern (in the broad sense of the term) whose application is a socially accepted—and, most importantly, socially imposed—canon of conduct.

For Descartes the separation of cognition from culture had a subjective origin and dimension. He believed culture entered the cognition sphere by way of the cognitive subject's cultural makeup—namely by polluting his strictly rational awareness with cultural interference. In order to function properly the mind, the attribute of the individual cognitive subject, must be cleansed of and separated from all cultural elements and influence. Only individual, rational subjects stripped of all cultural influence were able to attain truth.

The Cartesian approach to culture placed it by definition beyond epistemological interest. Culture in the Cartesian understanding is not an essential part of cognition and is only present as a basically alien and epistemically negative factor disturbing cognitive processes, which should be eliminated from cognition. In Cartesian eyes culture (manifested by the “culturally poisoned” constitution of the cognitive subject, his mind “dimmed” and “polluted” by the dogmatic rigors of cultural ideas, patterns and customs) devaluated cognition and denied it credibility.

In his studies on the Cartesian culture concept and its epistemological implications, Ernest Gellner showed extensively that culture existed *alongside* reason and that it was irrational. Cultural prejudice and patterns are deeply rooted and this is the only reason why they function.⁵ Mind and culture were in a sense set against each other throughout all modern philosophy. Modern epistemology in all its extensiveness has never included into culture the deeper aspects that conform its essence and without which cognition—especially broadly understood linguistic communication—would not be possible.

If we accept the Cartesian culture concept it is easy to agree that culture leads to error and falsehood, therefore the cognitive subject's main duty is to cleanse itself of all cultural influence as threatening to bring it away from the proper, cognitive path to truth. Here “culture” is all that belongs to the canons of non-cognitive human conduct and is alien, unnecessary and destructive to cognition.

If, however, we were to view culture in its broadest, universalistic sense (as all that humanity has created), the theory that cognition excludes culture would

⁵ Gellner, *op. cit.*, p. 18.

be rather doubtful and hard to prove. It would even be difficult to present, because this would among others require ridding cognition of language (as belonging to culture). This is the most pronounced difficulty with non-cultural cognition.

Contemporary cognition theories, especially those rooted in rationalistic science, continue to separate cognition from so-called “external factors”—hence also from culture⁶ in its broadest sense. Cognition’s autonomy is considered a fundamental value whose fulfillment conditions the fulfillment of all others. Non-autonomous cognition is viewed as polluted by elements alien to cognition which rob it of credibility and rationale.

Contemporary opposition to the autonomy theory is found mainly in sociology-related concepts, which, however, focus only on the social factors in cognition. Moreover, not on all such factors but predominantly those which are tied to the interests of various social groups. The role of cultural factors is ignored. This restriction helps create a specific perspective through which cognition appears different from the picture generated by hypothetically possible but unsatisfactorily realized concepts and the theory that cognition has a cultural dimension.

GLOBAL CULTURE AND CULTURAL INFLUENCE ON SCIENCE

History aside, when we look at the *status quo* of the culture-load-in-science issue we quickly see that its resolution depends on the accepted understanding of culture. This is certainly true for culture in its broadest sense, where it constitutes the entire human-created mental and physical world, in other words all which is not untouched nature⁷ and is a material or spiritual product of the human spirit. Here culture represents the entire reality constructed or co-created⁸ by man, confirming the determination theory to the point of triviality, as in this case it only confirms the obvious.

This broadest understanding of culture is ahistorical (culture, or the human-created world, exists since the dawn of human civilization and can be at most divided into eras) and globalistic (with some reservations as to the meaning of “global”, about which I write more below), and can also be universalistic. According to the universal culture concept all cultures of all nations in all historical epochs belong to one genre and this generic oneness constitutes the essence of culture. Ethnical, national, geographical and historical differences are unimportant and secondary in face of the universal culture embracing all humanity.

⁶ Cognition is mainly defended against social elements. Epistemology rarely mentions the culture category explicitly despite its presence in e.g. the linguistic mediation of knowledge.

⁷ The issue is neither clear nor simple because man’s biological activity and its effects are also a part of nature.

⁸ Co-created because—simple and trivial as it may sound – the material substances used to create objects of culture come from the natural world (e.g. stone for sculpting and building).

Thus, culture as a whole is the heritage of the entire human race. However, this seemingly simple and unconflicting statement is somewhat problematic in stating that culture is “all humanity has created” the discussed culture definition does not mean virtually all human production but only what humanity has produced in spheres in which it has *freed itself from animalism*. Meant here is this unique human factor which is not animal in character. Humanity’s suspension between biology (animalism) and spirituality (denial of animalism) constitutes a fundamental problem for universalistic culture theory. In their animal sphere humans are not culture creators but a part of a natural world alien to their nature. But can the animal aspects in human nature be separated from the spiritual (non-animal) factors responsible for building culture? Theories stating the total, generic separateness of the spiritual and animal belong to the past, today’s humanity concepts either postulating an unbreakable bond between the two or bringing man down to pure biology. Today’s juxtaposition is rather between spirituality and the material side of existence, a debate whose categories and standards are of little use for the spiritual versus animal issue, or, putting it more precisely, do not illustrate the problem well. Culture is by no means purely spiritual—it is co-formed by matter and in fact it would be hard to imagine “pure” spirituality as spirituality always manifests itself and functions through material objects. Putting it differently: culture rests on material foundations.

Also, there is the classical question to what extent (if at all) culture is absolutely non-biological, in other words, in how far the culture-nature dichotomy is justified. The world of culture is tied to the world of nature—either by culture’s emergence from nature (which assumes culture’s origins are biological), or by identity (in the materialistic approach to humanity and its products), or by the many material factors co-forming human spiritual production.

Regardless of approach reflections on the culture-nature dichotomy invariably come up against problems from the very start. First, the concept of nature (as a metaphysical existence independent of all constructive factors in cognition processes and all human activity, which is considered alien to nature) is only inviolable and fundamental in strongly realistic philosophies. Otherwise nature is viewed as an epistemic construct with diverse subjective interference. Constructivistic ideologies, which see nature as a product of culture, generate more questions. According to these philosophies culture is ontically and epistemically primeval. This in turn brings up queries about culture’s origins and the existence of any reality at all before its formation. This brings us back to humanity’s place in broadest-understood reality. On one hand humanity is held to be the creator and subject of culture, on the other man’s deeply ingrained corporality is evidence of nature’s primeval character. The primality of culture and its influence on nature leads to ontological problems which call for resolution. Viewing science as a part of culture leads to the unrealistic conclusion that science is

created independently of nature and that nature is created by scientific research—or that science builds and not represents nature.

The term “globalistic” used so freely in today’s culture debates should be approached with caution and used restrictively. Today it is mainly used by government ideology, also on the above-national scale, by authority which rules by means of force, aggression, terror and lawlessness (such is one of the faces of so-called modern democracy). In effect, the term “globalism” has become a political propaganda instrument whose current understanding does not embrace the generic closeness and equal status of all ethnic cultures despite their differences. Globalism does not postulate the synthesis of equal cultures—in fact, despite tempting declarations to the contrary, it does not strive towards such synthesis. As we know well, globalism wants to introduce cultural homogeneity and eradicate cultural difference—and not on principles of equality but discriminatively towards otherness and destructively for ethnic cultures. The true idea of globalism is humanity’s enslavement by the politically and economically dominating West, especially the United States of North America. The governments of the western countries mainly care for the interests of large corporations and the wealthiest, and use democratic ideas as propaganda to conceal their true pursuits. Globalism’s true (and for obvious reasons very downplayed) goal is the imposition on all humanity of the culture of one nation which usurps for itself the right to rule the world—its thought patterns, lifestyles, values, and even (by means of mass culture), its emotional expression⁹—until all are effectively subdued and all contesting cultures eradicated.

Modern non-conservative philosophers link globalism to ethnocentrism and cultural imperialism.¹⁰ They see it as another kind of enslavement restricting human freedom and dignity in the interests of usurpers granting themselves the right to impose their culture (and, in fact, their conditions) on the rest of humanity. Moreover, this enslavement is especially refined, perfidious and amoral in that it is concealed behind globalism’s strong propagation of human values, helpfulness and modernization (whereby it is assumed that modernization invariably brings advancement and is generally an unending reservoir of good). Globalistic slogans strive to transform one ethnic culture (Western) into a global culture model—not so much by absorbing other cultures, but pushing them beyond the western culture circle considered to be the superior model (somewhat coarsened by the American pioneer ideal involving the well-known bloodbath

⁹ It is an undeniable fact that mass culture is not just a disinterested and politically neutral provider of fun and entertainment, but also a complex propaganda medium strongly addressing the subconscious—and, in fact, the unawareness—of its recipients. Consequently, global culture implants its message in human minds without their consent.

¹⁰ Cf. Herbert Schnädelbach, *Kultur (Culture)*, in: *Philosophie. Ein Grundkurs*, edited by. H. Schnädelbach, E. Martens, 1985, Rowohlt Taschenbuch Verlag, Reibek bei Hamburg. Schnädelbach writes: “Someone who does not base scientific reflection on the assumption of cultural diversity only proves he/she lacks a scientific approach and risks being suspected of ethnocentrism, or even cultural imperialism”.

served to America's so-called "native population"—the Indians). Globalism usurps the right to transform humanity according to the needs and interests of its patrons. The installment of one uniform culture under globalistic slogans is the surest and easiest way to gain control over humanity. This cultural transformation of entire social groups, societies and nations enslaves them in ways of which they are to a large degree unaware—therefore, one may falsely conclude—painlessly. The price for this, however, is among others the annihilation of ethnic cultures—to which humans really belong in the material and spiritual sense and which constitute the basis of their existence. Thus in turn leads to the destruction of human autonomy and freedom and takes away the right of human beings to decide about their lifestyle. It also entails alienation, the transformation of millions of people into will-less recipients of a dominating alien culture which enslaves them to a degree where they lose their own cultural identity, and covert political and economic dependence. Today declarations to "spread democracy" are frequently nothing more than pure cynicism. Economic misery and extreme social differences are only two of the consequences of globalism—consequences that are well known, albeit for understandable reasons absent from mass-media reporting.

Because of globalism's ideological character philosophical reflection on cognition would be better advised to adopt the term "universal culture" (in a rather neutral sense of the term "universal")—and avoid confusing this concept with globalism.

Some universal culture models are built only around the spiritual sphere. Among others Ernest Gellner sees universal culture as a non-personal, persuasive style of thought, empathy and action which permeates the minds of all people in a given era. Such a culture is truly universal, at the same time it stands above humanity, controlling—and shaping—human minds from the outside. This culture's penetration of individual human minds is not a conscious process. Gellner neither explains nor even wonders about the ways in which such a spiritual culture penetrates minds to mercilessly impose on them its thought codes, emotionality, and behavior styles. In fact he appears to take this for granted, a given truth on which he bases all his further reflections. Neither does he present the essence of the concept underlying his theory—namely spirituality. Instead, he limits himself to negatively-flavored juxtapositions of the spiritual and material. As many other theories of this sort, Gellner's appears to be circumventing the basic question and reluctant to seek a conclusive answer.¹¹

The Marxism-based culture concept proposed by Jerzy Kmita also ignores the material aspects of culture. According to Kmita culture is an above-personal philosophical reality and a "modification of the concept of 'type' of social

¹¹ Ernest Gellner, *Reason and Culture. The Historic Role of Rationality and Rationalism*, Blackwell, Oxford—Cambridge (USA), 1992, p. 77.

awareness".¹² Kmita's theory is similar to (though not identical with) the culture ideology produced somewhat earlier by the Frankfurt School,¹³ which tied culture to the Marxist superstructure concept. Here culture equals ideology (superstructure), or, as postulated by Theodor W. Adorno, ideology is superior to culture. Debates around this culture model often make mention of "capitalistic culture industry" or "Stalinistic culture policies", and are unanimously negative in their judgments of culture (even its modern-day possibilities).¹⁴ Frankfurtian culture critics agree (especially Adorno in *Negative Dialectics*) that the traditional ideal of culture as a carrier of eternal values and immortal treasury of creative achievement perished in the hecatomb of World War Two.¹⁵

Culture reduced to the awareness level would drastically curb science (assuming that science is a part of culture). If science were a form of social awareness, its full representational and pragmatic functions would not fit the awareness-oriented culture concept, which excludes all ties to reality because it excludes all that is represented (in representationistic theories). Therefore, the subject of science (at least viewed through the prism of some kind of—if very weak—realistic thesis) would not belong to science. A pragmatic concept would also radically limit science as all human material activity directed towards the fulfillment of declared or factual scientific goals would not belong to science because science would not belong to social awareness. Science concepts which assume that the elements of the cognitive "game" (a game whose method cannot be pinpointed) belong to the unconscious also run against awareness-based culture philosophies. Thus, without delving into the overall adequacy of this culture definition, we can safely draw a narrower conclusion: that it will fail where science (in all its conceptual varieties) is viewed as a sub-domain of culture.

The adequacy of philosophy's culture definitions merits separate discussion. In fact, it can be abandoned altogether and the philosophical culture category proclaimed as normative. If, however, we were to reject this normativeness, we would be unable to bypass adequacy ("orthodox" normativeness in philosophical concepts stems from the unjustified assumption by philosophers that they stand not only above, but also beyond the human experience, and are in no way influenced by it). Let me voice some basic doubts in this respect: first, Gellner's and Kmita's respectively mentalistic and awareness-oriented definitions do not consider the material products of culture—art, man-made tools, everyday artefacts, books in their material form, objects which materially record sense, con-

¹² Jerzy Kmita, *Kultura i poznanie* [Culture and Cognition], Warszawa 1985, pp. 20, 24.

¹³ The Frankfurt School, which adopted the general Marxian concept, undertook the risky task of providing a theoretical backup to the social *status quo* issue, which it approached critically and from a distance.

¹⁴ Herbert Schnädelbach, *Próba rehabilitacji animal rationale, Odczyty i rozprawy 2* [An Attempt to Rehabilitate the *Animal Rationale*, Lectures and Essays 2], translated by Krystyna Krzemieniowa, Warszawa 2001, pp. 149–152.

¹⁵ Meant in this context are assumedly two senses of culture: as ideology, and as so-called "cultural life", or non-artistic human activity pursued to satisfy so-called "spiritual needs".

tent, convictions and emotional conditions, nor even sounds and signs—as a part of culture. This gives immediate rise to the question whether spiritual content can be transmitted by immaterial channels. Such transmission must be presumed in awareness-based culture theories, whereby awareness should not be reduced to material conditions. Were we, however, to adopt a reductionistic interpretation of collective awareness (as a successive development phase of matter), culture would *de facto* possess no distinct spiritual or mental character and awareness-based definitions would be a covert version of a purely materialistic approach to culture. This would be in keeping with the Marxian materialism on which Kmita's definition is founded.

Secondly, both Gellner and Kmita separate culture from all personal conviction: in their eyes culture is only that which is above-individual, social, and non-personal. On the other hand, though, it is not objective, but the subject of collective awareness; thus the objective character of scientific cognition is excluded from the culture sphere. In effect that what is created by individuals (e.g. artists), does not belong to culture until it becomes a part of collective awareness. This is acceptable and justifiable, albeit only in part and only on a superficial, not-quite-convincing level. Are works of art unknown to anyone except a few persons, or never publicly presented, not a part of culture? Do they acquire the status of "art" alone by the fact of their creation—or only through their collective recognition and resulting penetration to collective awareness? Further questions only haze the picture more. After all, culture is constituted by the "awarenesses" of individual subjects, who are at once its creators (if we discard Divine interference), recipients and subjects. In the long run culture can develop and function only through individuals. Also, it is in these individual awarenesses that collective awareness takes its beginnings. It is really hard to find reasonable grounds for excluding individual awareness from culture.

Thirdly, more than a century after Freud one can question Kmita's restriction of culture to awareness and exclusion of the subconscious. Many cultural phenomena and much "imprinting" of cultural patterns and behavior modes take place on the subconscious level—as is admitted by not only Freudians and neo-psychoanalysts but also most modern social psychology schools. The subconscious is an essential and irreplaceable reservoir of cultural content. Grammar, language, propaganda, etc., all necessarily employ the subconscious and without it we would be unable to explain most of what takes place in culture. Alone the formation of the subject of culture—the human being—takes effect (as broadly evidenced by both Freudians and neo-psychoanalysts, most notably Erich Fromm) on the subconscious plane. According to Fromm and many others culture penetrates to the deepest levels of human existence and co-forms human nature. Reference to the subconscious can also be found in the Michael Polanyi's intuitionistic theories.

Gellner's observations run contrary to the theory that culture is limited by awareness: culture's penetration to the mental realities of individual humans is

not a conscious process. Gellner does not reflect on how culture penetrates human minds, ruthlessly and unavoidably imposing on them its mental, emotional and action codes.¹⁶

Another culture definition, this time referring to the dimensions of human existence, was forwarded by Paul Ricoeur. According to Ricoeur culture embraces ethics and religion, however he fails to list all its domains.¹⁷ If we accept that they include all the non-biological dimensions of human existence, then Ricoeur's theory is a subjective equivalent of the universalistic definition.

Culture in its broadest sense also extends over the animal world. Michael Tomasello has proved that animals undergo typically cultural processes like transmission and inheritance, and in their result develop cultural traditions.¹⁸

In keeping with the universalistic culture definition mentioned at the outset of this article, science is a culture product. Thus-understood culture defines cognition—its goals, values, desired (and acceptable) results, postulated and applied methods, and, in consequence, the kind of content it produces. Here, all that constitutes science in its various fields belongs to universal culture. In other words—to reiterate one more self-evident fact—science belongs to humanity's cultural heritage. Regardless of our world outlook or philosophy, culture imposes the same symbolic perspective on our visions and comprehension of the world—and not just in the cognitive or strictly scientific sense, but also on the emotional and artistic plane. In all culture fields humans resort to camouflage, create symbolic “masks” of reality to help them cope with the real world existing beyond them as an alien and independent entity. Culture enables the taming of reality in the belief that its artificial masks, construed visions and “pictures” of reality are true representations of the surrounding world. This is sometimes called “indirect” or “mediated” experiencing.

What, however, is the point in cultural forms (especially as defined by Ernst Cassirer) which allow us to penetrate to reality if reality is nothing but a cultural construction, the effect of subjective human creation? Here again—as in many other reflections—we are brought back to the double paradox of realism/anti-realism which makes the matter more difficult the more one delves into it.

Universalistic culture implicitly assumes that the cultural symbols which function in its many activity spheres are at least loosely related. Therefore, science is not simply a part of culture that is generically distinct from other culture spheres. The relation here is closer: science is essentially tied to other spheres of

¹⁶ Ernest Gellner, *Reason and Culture. The Historic Role of Rationality and Rationalism*, Blackwell, Oxford–Cambridge (USA), 1992, p. 77.

¹⁷ Paul Ricoeur, *Religia, ateizm, wiara* [Religion, Atheism, Faith], translated by Halina Bortnowska, in: *Egzystencja i hermeneutyka. Rozprawy o metodzie* [Existence and Hermeneutics. Essays on Method], selected, edited and foreword by Stanisław Cichowicz, Warszawa 1985, p. 35.

¹⁸ Michael Tomasello, *Kulturowe źródła ludzkiego poznawania* [The Cultural Origins of Human Cognition], translated by Joanna Rączaszek, Warszawa 2005, p. 23.

culture—as much by the fundamental fact that it offers a symbolic and universal vision of reality (approached metaphysically only from the perspective of realism), and hence also the subjective spheres of culture, as by the even more basic truth that the main subject of culture is humanity in common pursuit of ways to shape reality by symbolic.

In effect, in the universalistic approach to culture the dependence of science on culture appears to be so obvious as to be uninteresting. Science is a specific form of cultural activity and one of the so-called “spheres” of culture. And as culture is the larger system, the question whether science is conditioned by culture is answered in the affirmative without first seeking the presence of “cultural factors” in science. Science is not just determined by culture—it is culture.

This conclusion’s self-evidence and necessity are, however, illusory. In fact queries into science’s dependence on culture mainly focus on two issues: whether science is influenced by any other part of culture besides itself—and hence external to it—and whether any forms of scientific knowledge show essential, generic similarity to non-scientific culture (art, customs, etc.). In other words—whether culture despite all its diversity possesses universal and invariable elements which shape all its forms, and whether these forms are irreversibly inter-related.

Science’s dependence on non-scientific culture is acceptable if one sees culture as a structure (system), a collection of inter-connected, mutually penetrating parts, whose differences are far smaller than their generic, cultural similarity. Today the systemic nature of culture is a hardly-contested—and therefore hardly discussed—certainty. Starting with Claude Levi-Strauss and the French structuralists, contemporary ethnologists have focused all their attention on the pursuit of “common cultural elements” —a common base underlying all ethnic cultures and the connections between them.

Science shapes the human imagination and language, it is present in human activity (work, customs, rites, mythology), in the basic routines of everyday life, and even in our emotional approach to reality.¹⁹ This similarity’s symmetrical character is equally easily explained by reference to the origins of science and its pursuits, the dependence of science on natural languages, or the construction of non-scientific models. Science often draws analogies with daily life (e.g. the falling elevator visions which haunted Einstein from childhood, Schrödinger’s cat).

Because of the systemic character of universalistic culture science is not an isolated entity but is tied to other culture spheres. In effect science (and, in fact, all human knowledge) is controlled by more than its own, inner rules, and is

¹⁹ Some examples are so plainly evident that they are hardly worth mentioning: human everyday life is full of artefacts discovered or created by science (electricity, detergents, combustion engines, etc.) All so-called “everyday articles” are the effect of fundamental discoveries by the natural sciences, hence products of not only practical but also theoretical science.

therefore not autonomous. The non-autonomy of science and knowledge puts them in an epistemologically new light against traditional definitions.

Science's dependence on culture must not necessarily lead to the conclusion that knowledge is irrational. It is, nonetheless, a rather essential issue, and one which awaits resolution. Many elements of culture are essentially a-rational, meaning they can not be viewed as either rational or irrational. An example in science are the symbols used to represent reality, which indeed cannot be defined as "rational" or not (at least not under our standard rationality criteria).

The rationality of culture-loaded science becomes an increasingly complex issue even when we analyze only its basics, and the problem that arises is whether it is at all possible—or sensible—to speak about rational culture. According to what criteria is culture to be classified as "rational" or "non-rational"? Can one of these criteria be the methods of obtaining knowledge currently recognized as rational and consistent with the rules of logical thought? Absolute adherence to such rules excludes all existing and past cultures—and not only on the descriptive level. Are rationality models not produced by culture? If so, one could suspect we are witnessing a feedback loop of constructions and explanations.

The universalistic approach to culture leads through a labyrinth of conceptual dependencies to the question about rational science's links to a-rational (or, as traditional epistemologists maintain—irrational) culture.²⁰ At first glance this question appears to be a Gordian knot which cannot be untangled.

CULTURAL PLURALISM, ETHNIC CULTURE

In his commentary on the distinctions between "culture" in the singular and the plural "cultures", Herbert Schnädelbach states: "Earlier authors considered culture to be *one*—one area which, like nature or society, displays common features. We, however, unreservedly use the term "culture" in the plural and see this as proof of our enlightenment".²¹

The ethnographical culture definition recognizes cultural diversity as a fundamental fact. Cultural differences help create separate cultures, cultural plurality and cultural diversity, with the specific features of individual cultures playing a primary role in determining their structure and essence. The ethnographical approach belongs to Schnädelbach's more general and less specific "culture in the plural" category. Basing on humanity's material and spiritual heritage, the ethnic culture definition focuses on the differences to other cultures present in the cultures of individual regions, nations and other social communities. Here cultural difference which leads to the formation of new cultures is considered

²⁰ Despite the fact that ancient Greek culture was considered rational.

²¹ Cf. Herbert Schnädelbach, *Kultur* [Culture], in: Philosophie. Ein Grundkurs, op. cit. ed. H. Schnädelbach, E. Martens.

the dominating factor—or at least equally important as similarities. In the ethnographical approach culture is built by that which is unique in the output of a cultural subject—a nation, tribe or other social group—not that which is universal and important for all mankind.²² The invariable, common base of all cultures is set aside—“culture” in the ethnic sense is that which is unique in cultures and distinguish them from others. That which moves outside the invariable base. Schnädelbach notes that the ethnographical culture definition is an effect of culture’s “scholarisation” by culture anthropology and its appropriation of a concept which culture anthropology originally devised for philosophy.²³

Cultural pluralism gives rise to queries about the origin of cultural diversity because if culture is created by humans in the generic sense of *homo sapiens* and individual specimens of *homo sapiens* are essentially identical regardless of race, nationality, social status, epoch or personality, then cultural diversity (or even its postulation) becomes problematic. Does the species *homo sapiens* divide into sub-species which construct different world outlooks and different ways of shaping the world? Are cultures the product of human individuals and are the unique, particular features displayed by individuals that which forms cultures which then spread to societies? History does not appear to confirm either of these hypotheses.

The ethnic culture concept and its underlying axiom that human culture is essentially diversified generates problems with science’s cultural dimensions on a level far removed from the universal culture issue. An extremely intriguing question—and fundamental for understanding the essence of science—is the uniqueness of its origins. Science historians agree that modern science emerged in only one of Europe’s cultures—either in ancient Greece or at the dawn of the modern era. Regardless of which it was, science is certainly a product, part and feature of European culture. And indeed even today science is closest linked to Western culture. Of course other cultures make use of science, however, despite their cultural distance (often concealed to avert accusations of anachronism and backwardness), “non’Western” societies see science as an alien growth, an imported phenomenon frequently irreconcilable with the world outlook professed

²² The specific features of cultures—their unique customs, rites, beliefs, social relations, etc. — were the subject of anthropological study in the field research era, notably by the pioneer of field studies and (as Gellner called him) “paradigmatic anthropologist” Bronisław Malinowski. Anthropological reports at the time focused on the customs of so-called “wild” cultures, which often proved quite shocking for white society. Ernest Gellner claims that nationalism and populism led pre-Malinowski anthropologists in England and their leader James Frazer to the belief that “wild” cultures portrayed humanity’s earlier development stages. (E. Gellner, *Language and Solitude. Wittgenstein, Malinowski and Habsburg Dilemma*, Cambridge 1998, p. 115). If this were to be the case ethnographical studies would concern culture understood universalistically, not ethnographically.

²³ Herbert Schnädelbach, *Próba rehabilitacji animal rationale, Odczyty i rozprawy 2* [An Attempt to Rehabilitate the *Animal Rationale*, Lectures and Essays 2], translated by Krystyna Krzymieniowa, Warszawa 2001, p. 153.

by their ethnic cultures. Science is a mighty tool in the pursuit of practical goals. Thus understood—as a practical tool aiding humans in their daily battle with reality, useful for production and effective against adversities like poverty, disease or natural disasters—science is accepted by many ethnic cultures. Nonetheless there is much evidence that non-Western cultures tend to treat science as a “white man’s magic”, or at best a set of clever tricks and not a philosophy underlying their thinking or their reception of the world. In these cultures the character and nature of science escapes the comprehension of not only so-called “ordinary people” (which is justifiable), but entire societies, and especially their equivalent of the West’s intellectual elites. Here science at best introduces a dissonance in ethnic world outlooks which differ from western rationalism. It also upsets the ontological principles and accepted methodology underlying such philosophies.

Moreover, the ethnic culture category generates further problems with science. First of all, Western philosophy and Western non-philosophical culture regard science as a universal human product, hence an attainment neither based on or referring to any generic characteristics or patterns. Therefore science should not be linked to any specific culture—and if it is bound by culture (in the plural sense), then only by the invariable elements which lie at the base of all ethnic cultures (in other words that which is common to all cultures, assuming that there really exists a universal element common to all cultures and that it is important). It is not difficult to notice that this hypothetical resolution of the origins of science issue is in fact a universalistic one: it rejects cultural diversity on a deeper plane and seeks universal factors in all cultures, which it holds responsible for the emergence and nature of science. A search for sameness amongst diversity.

Secondly, there is the problem posed by James Frazer in his theory that the human mind underwent three development stages—from magic through religion to science.²⁴ This idea reflects a state of awareness that was rather common (in the general and intellectual sense) in Western culture at the outset of the modern era and has survived to our day. According to this definition the emergence of science marks the highest level of human development. This leads to the conclusion that cultures which did not produce science are less-developed than Western culture. In this case science functions as a basic tool for the valuation of cultures. Frazer’s theory is probably one of many supporting the conviction that Western culture is superior to others.

In opposition to Frazer’s claims stand the 1930s theories of Edward E. Evans-Pritchard, who saw science, its origins and functioning as specific for one ethnic culture—Western, above-national, embracing the entire territory of Europe, and genetically rooted in the rationalistic traditions of ancient Greece.

²⁴ Ernest Gellner, *Language and Solitude. Wittgenstein, Malinowski and the Habsburg Dilemma*, Cambridge 1999 (1st edition 1998), p. 117.

Simultaneously, Evans-Pritchard disagreed that the presence of science in Western culture proved its superior status to others.²⁵ The thesis that culture diversifies into separate ethnic cultures generates problems of a different nature than those offered by the universal culture concept. As is easy to see, science is not a necessary element of all ethnic cultures and many fare quite well without it. Consequently, science is a very special product of ethnic culture and not universal at all. Major non-Western cultures—notably Chinese, Indian, Aztec and Arab—boast many magnificent achievements and a high level of advancement and sophistication without ever having produced science in the Western sense of the word. Indeed the problem is difficult to articulate as this would require a definition of the essence of science unnarrowed to the specifics of Western culture.

The most evident conclusion is that science certainly belongs to culture understood as a universal human product, as the entire human world embracing all that humanity has created. Viewed from the opposite perspective—with culture understood ethnically—science also belongs to culture as one of its many variations. A product typical of and specific for the Western culture area. Both theories, however, are based on stereotypes or near-stereotypes and rather superficial. Moreover, those who proclaim them show how seriously they lack knowledge—about how to comprehend science, which of its various layers to focus on, whether, despite the many areas in which it functions, it should be viewed as an entity, or whether one should seek its essence and ignore all that is coincidental. Should we accept method as the founding-block of science, or rather the scientific results it helps achieve?

The choice of layer (method, content, organization) and the treatment of science as a special kind of social subject does not resolve the issue as each of these layers is explicated in many ways by philosophy and outside it. To put it most simply: if method, then what method? If content, then what content? What is essential for the essence, the “hard core” of science?

To return to Frazer’s theories—is science a necessary phase of human development (as he claimed and which is seemingly a much-circulated thesis in today’s social awareness)? If science is the product of one culture rooted in ancient Greece, can it be considered a universal achievement of human civilization? In fact science appears rather to be a cultural exception than a generic human necessity. Claims that the cultural backwardness of some nations and societies lies behind the absence of science in many ethnic cultures move the debate onto the ideological plane and racist solutions postulating cultural hierarchy and the valuation of cultures.

Frazer’s opponents maintain science is an accidental phenomenon along humanity’s civilizational road, a “freak of nature” rather than a necessary stage in

²⁵ Edvard E. Evans-Pritchard, *Levy-Bruhl’s Theory of Primitive Mentality*, Bulletin of the Faculty of Arts, University of Egypt, Cairo 1934, quoted after: Peter Winch.

the development of *homo sapiens*. According to this view humanity can fare quite well without science—as indeed it does by creating non-scientific philosophies and successfully coping with the mental and material aspects of reality in non-scientific ways. In many societies the absence of science in the Western sense is no limitation whatsoever on spiritual life.

One may conclude that universal and culture-independent human nature is not that which constitutes the subjective fundament of science. Moreover, the claim of cultural independence soon leads to biologicistic and spiritualistic conclusions based on “objective spirit” concepts assuming the existence of a superior spirituality which permeates to individual subjects. One may believe science is the effect of the emergence of a specific style of thought and a specific, existential attitude to reality (at least dual, and certainly ambivalent, with on one hand a desire for power over reality and, on the other, a striving to escape all hegemony for a life in contemplation and cognition purely for cognition’s sake). Even if we accept that these goals are common to all mankind, they can definitely be pursued in various ways not necessarily leading to the emergence of Western-type science. The above reflections by no means provide a straightforward answer to questions about the cultural loading of science. Indeed it would be somewhat rash to expect simplicity in this extremely complicated matter.

CONCLUSIONS

The above is not a full picture of the title issue and its complexity, nor does it provide even primary categories with which to approach it. I only gave brief mention to the Frankfurt School’s important culture concept, present especially in Theodore Adorno’s critical philosophy. Neither did I dwell on the rather narrow view of culture as “high culture” mainly identified with art—despite the fact that the problem was already posed by Plato, who separated art from cognition already in the primary, subjective phase and thus laid the ground for today’s convictions about art’s separateness.

Science’s dependence on culture is a much more complicated matter than would appear from the rather scant contemporary philosophical writings on the subject. The truth is that there is no conclusive answer to the question about culture’s impact on science.

In view of the outlined difficulties and the naïve extremism displayed by the problem’s commentators, the above reflections suggest a more integristic approach which I have called the “third road”. This approach postulates the existence of a universal core underlying human cultures in all their indeed vast diversity. Both currently dominating theories—one proclaiming culture as totally universal, the other as totally diversified—are naïvely extremistic and exaggerate the true state of affairs. The “third road” postulates that science is universal despite its cultural load and the existence of many different cultures because it is rooted in the universal core common for all cultures.

Claims that the nature of culture is universal not just superficially but on deeper levels despite the fact that cultural difference is “superficial” can be explained in two ways. We can, for instance, resort to commonplace beliefs. It is often said, that there exist “levels of understanding”, “platforms of dialogue”, and a “human community” (although these optimistic declarations are rarely clear, problem-free or generally accepted). One also hears that human communication above cultural divisions is not only possible but actually underway, returning humanity to its most fundamental (and perhaps somewhat forgotten) forms of cultural and biological community. Indeed there is much to confirm this. In defending the universalistic nature of culture one may also refer to more general concepts: if we assume that culture is a specific symptom of human nature (provided there exists a “human nature” common to the entire human race), then all existing and future cultures must possess at least one common element as they all grow out of human nature.

The belief that diversified ethnic cultures have a common core runs against the cultural diversity theory, according to which there is no communication between different cultures, and the belief that the essence of all cultures is primitively universalistic. The approach I suggest admits dialogue—albeit one which penetrates through the phenomenistic layer of cultures to its more essential levels.

The “third road” approach does not deny the existence of separate ethnic cultures, nor does it wish to deprive humans of the natural cultural background in which they live and function throughout their conscious lives. Simultaneously, however, it recognizes a universal element common for all ethnic cultures. Unlike globalism’s “universal culture” theories, the “third path” does not propagate the global cultural hegemony of an imperial (capitalist) ruler claiming the right to impose his laws, order and culture on the whole world. Here “universal culture” is the common factor which exists in all cultures—which are after all products of one human nature. In this sense universal culture is not the culture of a political and economic hegemony, usurper or invader. It is not an imperial culture spread through the enslavement of dominated nations, but is founded on that which is common to all cultures.

Consequently, the “third path” confirms the universal character of science whose reasoning, methods and representation are based on the common part of all cultures—their universal core.

ABOUT THE AUTHOR — senior research fellow in the Institute of Philosophy and Sociology of the Polish Academy of Sciences; *Dialogue and Universalism* deputy editor; main fields of investigations: philosophy of science, epistemology.