

GLOBALISATION, FUNCTIONAL BRAIN ASYMMETRY AND THE CULTURE INTEGRATION ISSUE

Initial comments. Though the term “globalisation” is widely used nowadays, nevertheless it has not been defined clearly enough. It usually implies both universal issues which affect the world as a whole and the effects of integration trends in the form of the development of a single world market, a single world system of links and relationships between nations, states, civilisations. Information revolution and even the birth of man of a new quality and megasociety, a new community form, have become common topics.

In our opinion, global issues are related first of all to the development of comprehensive environmental and nuclear disaster measures. They are also related to thrifty use of natural resources and establishing more or less fair relationships between the developed and less developed regions of the planet, joint programmes in health, demography, hunger and poverty prevention in a number of countries, etc. An independent science called *globalistics* is formed on the basis of studies and methods for resolving global issues. «Growth Limits», the studies carried out by the Roman Club and published in 1972, are considered to have laid the basis for studying global issues.

As regards the issue of the development of new man in the globalisation era, we made an assumption that the current information and communication revolution is not capable of transforming fundamentally either human mentality or its biology which developed since ancient times, in fact since the origination of Homo Sapiens same as the scientific and technological achievements of the past centuries, failed to make a qualitative change in the human nature.

Internet and other latest means of communication can contribute to the manifestation of the best or worst, lofty or vile sides in human nature. But they are not capable of giving birth to a new kind of man, that is, the man being beyond this or another contemporary major and leading ethnos or, as we should assume, the ethnoses with a millenniums old history. Therefore the hopes of some intellectuals for the «convergence» of ethnoses (nations and peoples) in the future into a certain super-ethnos or a «mega-society» seem quite problematic.

In our opinion, the so-called «mass culture» and its violence, sex and cruelty cult are devoid of any attributes pertaining to the development of a new kind man. It just replaced intelligence with instincts, love with sex, man with a

neosavage. In other words, it has shifted the focus of attention of man stressing one of the sides in human nature which the ancient Greeks linked to god Dionis.

Functional brain asymmetry and the distinctive features of ethnic cultures. The issues related to brain hemisphere asymmetry and ethnic cultures are effectively covered in detail in an article by V.S. ROTENBERG and V.V. ARSHAVSKIY under the title of «Interhemispheric Brain Asymmetry and Culture Integration Issue» published in «Philosophy Issues», Journal, 1984, No 4, pp. 78-86). The issue formulated in the article is still outstanding. In speaking about globalisation and the possibility of integration of cultures, the authors say: «The second half of the twentieth century is characterised by express centripetal trends which make particular regions, cultures and civilisations closer to each other. The distances between continents made smaller due to modern means of communication, the development of the global environmental issues affecting the population of the planet as a whole, the migration of big masses of the population to unusual social and cultural environments, steadily increasing links between different cultures make the humankind face the issue of integration between cultures, arranging the interaction based on the mutual enrichment principle rather than on the principle of domination of one nation and absorption of another nation» (ROTENBERG, ARSHAVSKIY, p. 78).

According to V.S. Rotenberg and V.V. Arshavskiy, the integration (unification) of cultures is desirable but is difficult to implement: it requires mutual understanding between people brought up in different cultures, meanwhile such mutual understanding is «difficult to achieve» (same source) if, we dare add, it can be achieved at all. Opinions are frequent according to which the integration of very different cultures such as the cultures of the West and the East (the Islamic world, China, India, etc.) is out of the question. Thus, Al-Janabi, an Iraqi scholar, noted at the Third International Symposium which took place in Moscow (April, 1997) under the title of «Dialogue between Civilisations: East - West» that «mutual understanding between the East and the West and especially so the West and East sincrisis of ideas and beliefs is ruled out for both genetic and essential reasons... A dialogue between the Western and Eastern cultures is not so unthinkable as it is but it cannot be implemented in reality due to drastic heterogeneity in the fundamentals of civilisation; only business and virtually position-based relationships are possible with the realisation and preservation of their heterogeneity and fatally unavoidable antinomy» (ANIKEYEVA, SEMUSHKIN, Dialogue of Civilisations, *Philosophy Issues*, 1998, No 2, p. 177).

M.T. Stepanyants, a Russian scholar in Eastern sciences, agreed that the axiom of parallelism between the civilisation attributes of the East and West hampers a productive dialogue between them with regard to a notion such as «justice», for example, the content of which fails to match in Western mentality and in traditional Chinese and Hindu societies (see p. 175 in the same paper).

N.S. Kibareva, the Dean of the Russian University of Friendship of Peoples (RUDN) noted that in studying global issues regard should be paid to the fact of cultural diversity and polyarchism (multiple world policy centres) both «in the world as a whole and between the East and West» (see p. 177 in the same source). In other words, fundamental pre-conditions for cultural differences are in place.

The genetic factor which determines to a significant degree inter-cultural differences, including the way of thinking, is inter-hemispheric (brain) asymmetry¹. It is established that the logical and verbal reflection of the world, as well as reading and counting are related to the function (activity) of the left cerebral hemisphere. Operating images, spatial orientation, differentiation of musical tones, melodies and non-verbal sounds, recognition of complex objects (for example, human faces), as well as the development of dreams are determined by the activity of the right hemisphere. It is also important to note that the key difference between the hemispheres and their functions is not related to the distinctive features of the material (verbal material or graphic material) involved, but is mainly related to the method of organising such material, the nature of information processing, that is, the kind of thinking.

Each of the kinds of thinking has its advantages and limitations. Logical-verbal (logical-sign) thinking as discrete, analytical and abstract thinking performs a number of successive operations, supports consistent analysis of subjects and phenomena by a definite number of attributes. The consistent model of the world, built by logical-sign thinking and expressed in words and other conventional signs, is a necessary condition for social communication, definitive relationships between society members, the identification of cause and consequence relationships between things and phenomena. However, the aforementioned kind of thinking chooses just some of the attributes, links and relationships in the world of things and processes making poorer the world which it reflects and its objective picture.

Unlike the verbal-sign (logical) kind of thinking, the image kind of thinking ensures comprehension of the world in its entirety, and it does so simultaneously and synthetically. In other words, the image kind of thinking related to the function of the right hemisphere allows to «capture» immediately, fully and entirely the multiple properties of objects, links between them, to identify multiple sides and relations in the world of things and phenomena. This possibility forms the basis of intuition and the creative process, particularly «at the stage of «maturing» of a scientific or artistic idea» (ROTENBERG, ARSHAVSKIY, op. cit., p. 79), its «vision» and comprehension. However, the image-based thinking complicates reflection (and comprehension) in a logically inconsistent

1. US scholar R. SPERRY was awarded the Nobel Prize for the development of the functional brain asymmetry theory.

form properties and relationships between things.

Naturally, the two hemispheres are not isolated from each other being linked by their functions. Each of them contributes its own specific features into operation of the brain as a whole. It means that, apart from other things, the logical type of thinking comprises certain elements of the image-based thinking and vice versa, the image-based kind of thinking comprises elements of the logical thinking. It is clear that the «specific content» for this or another kind of thinking is different for different people same as for different ethnoses. More precisely, all kinds of thinking are present in each ethnos (nation), but one of them dominates, that is this or another kind of vision statistically dominates to a certain degree among individuals belonging to a particular ethnos.

Kinds of thinking and integration of ethnical (national) cultures.

Following certain canons of Marxism and the traditions of the Age of the Enlightenment, V.S. Rotenberg and V.V. Arshavskiy, the authors of the aforementioned study, assume that the kinds of thinking developed mainly under the impact of social environment (upbringing, customs etc.), of what they call social and cultural «heredity» (continuity). However, effectively the authors provide convincing evidence of the dependence of ethnic cultures mainly on the hemispheric brain asymmetry.

So, they write: «The distinctive features of the development of our modern (Western - F.K.) civilisation with its focus on analysis of definitive cause and consequence relationships and dedication to active transformation of the world is based on the capabilities of logical-sign thinking and promotes its development to a relatively significant degree. Some Eastern civilisations oriented rather at adapting man to the world as to something given and invariable rather than at adapting the world to man and overcoming the internal controversy of the world due to the non-alternative approach (which is particularly obvious in the Zen-Buddhist systems) employ mainly the capabilities of image-based thinking and promote its development (ROTENBERG, ARSHAVSKIY, p. 83).

Speaking about the distinctive features of interhemispheric asymmetry and ethnic cultures, the authors refer to Makoto Kikuchi, a Japanese scholar, who paid attention to «a fundamental difference in the nature of thinking of the Japanese, on the one side, and representatives of the Western civilisation, on the other side» in his paper under the title of «Creativity and Ways of Thinking: The Japanese Style»², not being a specialist in cerebral sciences and, perhaps, having no idea about the functional asymmetry of the brain. The author showed that «the Japanese are not prone to using definitive formulas such a yes or no in the course of both business and domestic communication. Rigid differentiation

2. KIKUCHI M., Creativity and Ways of Thinking: The Japanese Style, *Physics Today*, 1981, pp. 42-51.

between «white» and «black» is not typical of their culture, they are very sensitive to all tinges of light, the whole spectrum, be it comprehension of nature or relationships between people... As regards the English language, he (KIKUCHI - F.K.) writes, expression in letters, focus on logic, linear structure are typical of it, and it is particularly convenient for science. The Japanese language is more appropriate for poetry, it expresses content with the use of similarities, is focused on feelings» (the same source).

And further: «It is more difficult for the Japanese to remember numbers than for Americans, but their spatial and image thinking is much broader. In explaining the way, a Japanese would not mention the names of the streets and the number of the buildings to be passed, but would offer a bright picture where reference points would be the colour of a building, its layout, location in relation to other buildings. The cult of nature of Japan is also widely known» (same source, pp. 83-84). It follows from here that the image-based thinking which the Japanese possess is related to increased activity of the right hemisphere thinking. V.S. Rotenberg and V.V. Arshavskiy note in this connection: «As regards creative potential, the Japanese, evidently, exceed Europeans and Americans on the average, and such potential capabilities are embodied with brilliance in some kinds of art (poetry, painting). The Japanese poetry is a paragon of image saturation and multiple meanings. But Kikuchi draws attention to the fact that as regards exact sciences, creative capabilities are not embodied with as much brilliance as it could be expected» (p. 84). Kikuchi accounts for this circumstance by the fact that as compared with the Western society, the Japanese society is psychologically homogeneous. Individualism and independent thinking are not developed well enough in the Japanese society. Besides, according to Kikuchi, the training system is «aimed rather at «coaching» for taking exams than at the development of independence in thinking» (same source)³.

As regards the issues of integration (merging) of cultures and the possibility

3. Japan is one of the few countries of the world which achieved tremendous progress in almost all industries by purchasing Western technological projects and making some improvements in them, particularly in the electronic technology and electronic industries, as well as in the automotive and ship-building industries. Suffice it to say that Japan ranks second (after the US) by industrial output. All this is achieved despite the fact that the country's economy is in significant dependence on the imports of commodities and fuel. Currently Japan's share in the science-intensive product market is 30% which makes Japan rank second after the US (40%), *Nezavisimaya Gazeta*, May 16, 2001.

In our opinion, Japan's achievements in science-intensive technologies demonstrate that the country gave up the former training system and aims at investing more funds in the development of science and education. It is no secret that science and education are the leading productive forces and are efficient and profitable industries in the West.

of their mutual enrichment, V.S. Rotenberg and V.V. Arshavskiy urge «taking into account the ethnic peculiarities of thinking and vision closely related to the distinctive features for hemispheric relationships (p. 85). If differences between ethnic cultures are rooted in the distinctive features of hemispheric relationships, then, in our opinion, only mutual influence and mutual enrichment of national cultures are possible in the foreseeable future, but not their integration, that is, merging or convergence into some off-ethnic culture. The example of Japan which keeps its ethnic identity on the scientific and technological revolution and globalisation environment confirms the thesis according to which the development of a single world market space, world financial system and world communication system does not eliminate the diversity of cultures.

Finally, it is necessary to take into account differences in the level of economic, political and cultural development of different countries and nations. The psychology and culture of the developed countries differ significantly from the culture of the developing countries. This circumstance prevents the integration (synthesis) of cultures, at the current development stage in any case.

The cultures of different nations and countries interact between each other and get mutually enriched. But this process is inevitably related to contest, competition, a kind of a struggle between them in the world arena. For example, intensified globalisation processes resulted in the «cultural imperialism» of the West and, first of all, the expansion of the US civilisation. However, preserving the identity of ethnic culture depends in many respects on the level of its development and distinction, its information content and spiritual wealth. The measures taken at protecting the national cultural wealth are also of importance. For example, it is prohibited to clog the French language with «debris from English» in contemporary France.

The events of the recent times demonstrate a clash between cultures rather than their integration.

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