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Bioethics, semiotics of life, and global communication

Augusto Ponzio and Susan Petrilli

Abstract. Ethical problems connected with biological and medical discoveries in the fields of genetic engineering, neurobiology and pharmaceutical research, reach a unified and critical point of view in bioethics. With bioethics ethical problems become the object of study of a specific discipline. But even before reaching this stage, ethical problems already belong to two totalities which together contribute to the characterisation of such problems: one totality is the *semiobiosphere*; and the other is the current social form of *global communication*. Coherently with its philosophical orientation, which is critical and foundational, bioethics must necessarily keep account of this double contextualisation of the problems it studies. The semiobiosphere is the object of study of *global semiotics* or *the semiotics of life*. Global semiotics is of particular interest to bioethics not only because of the broad context it provides for the problems treated by bioethics, but also because it provides bioethics with an adequate contextualisation both in terms of extension, of quantity, as well as of quality. From this point of view, “contextualisation” also means *critical reformulation*. Global semiotics contributes to an *approach to bioethics that is foundational and critical*. In addition to this double contextualisation offered by global semiotics, phenomenological and ontological, another kind of contextualisation is necessary for an adequate treatment of problems relevant to bioethics. We are now alluding to the need of viewing bioethical problems in the light of today’s socio-economic context, that is, in the context of *global communication-production*. These contextualisations are closely related from the viewpoint of ethics. In fact, semiotics as global semiotics or semiotics of life must now accept the responsibility of denouncing incongruencies in the global system, any threats to life over the entire planet inherent in this system.

Bioethics offers a unified and critical perspective for ethical problems connected with biological and medical discoveries in the fields of genetic engineering, neurobiology and pharmaceutical research, etc. With the introduction of bioethics such ethical problems become the object of study of a specific discipline.

However, even before the introduction of this new discipline, ethical problems are already part of two totalities which together contribute to their characterisation: one totality is the *semiobiosphere*; the other is today’s society of *global or world communication*. Bioethics, coherently with its philosophical orientation which is critical and foundational, must necessarily keep account of this double contextualisation when dealing with the various problems at the centre of its attention.

The focus of *global semiotics* or what we may also call *semiotics of life* is the whole semiobiosphere.

Thomas A. Sebeok above all has contributed to the current status of this discipline or “doctrine of signs”. Rather than the more ennobling terms “science” or “theory”, Sebeok prefers the expression “doctrine of signs” adapted from John Locke — for whom a doctrine is a body of

principles and opinions vaguely forming a field of knowledge, and with this expression Sebeok takes his place in a tradition that includes Berkeley and leads to Charles S. Peirce.

Like Kant Peirce focusses on signifying conditions. This leads to the possibility of identifying foundations shared by the human sciences and the natural sciences. Thanks to Peirce's "doctrine of the categories" the two opposite conceptions of reality which have dominated Western philosophical thought at last meet. We are alluding to the conception of reality which originates from Aristotle, on the one hand, and recites that things exist on their own account and independently from mind, and to the opposite conception which describes reality as depending on mind, on the other. The point of encounter is the semiotic perspective which describes objects and minds as part of the common process of semiosis.

The expression "doctrine of signs" also evidences the pedagogical character of Sebeok's research — but not only. With this expression Sebeok recovers the *critical* instance of semiotics. From this point of view not only does semiotics assign itself the task of observing and describing sign processes, but even more than this it interrogates itself *à la* Kant on the conditions of possibility of sign processes, just as it interrogates the conditions of possibility of the disciplines themselves that study sign processes.

As stated above, the object of global semiotics, of semiotics of life, is the *semiosphere*. This term is taken from Lotman but is understood in a more extended sense. In fact Lotman refers the term "semiosphere" to human culture, while in the perspective of global semiotics the *semiosphere* identifies with the *biosphere* and may be characterised as the *semiobiosphere*: in fact *semiosis* coincides with *life* and in this sense global semiotics is "semiotics of life". Global semiotics is in a position to evidence the extension and consistency of the sign network which obviously includes the *semiosphere* as constructed by human beings, by human culture, signs, symbols and artifacts, etc. But *global semiotics* also underlines the fact that the semiosphere is part of a *far broader semiosphere*, the *semiobiosphere* — a sign network human beings have never left, and to the extent that they are *living beings*, never will.

With reference to Sebeok's writings the most systematic exposition of global semiotics is offered by the Italian edition of his book of 1991, *A Sign is just a Sign: La semiotica globale* (1998), which in addition to the original edition includes his essay of 1994 "La semiotica globale". Another book by Sebeok is scheduled to appear in 2001 entitled *Global semiotics*.

At an international level the most systematic work in global semiotics is without a doubt *Semiotics: A Handbook on the Sign-Theoretic Foundations of Nature and Culture*, in three volumes (the third is forthcoming), edited by R. Posner, K. Robering and Thomas A. Sebeok. This volume has benefited from the participation of 175 authors from 25 different nations. It includes, among others, an article by Sebeok "The evolution of semiosis" (published in Italian translation in his volume of 1998 cited above) in which he claims that life and semiosis coincide. This *Handbook* also includes many other articles referring to different fields and interests covered by global semiotics, these include: Biosemiosis (Th. von Uexküll), Microsemiosis (F. E. Yates), Endosemiosis (T. von Uexküll and W. Geiges), Mycosemiosis (G. Kraepelin), Phytosemiosis (M. Krampen), Zoosemiosis (W. Schler), Anthroposemiosis (F. M. Wuketits), Semiosis of machines (P. B. Andersen, P. Hasle, P. A. Brandt), Environmental semiosis (G. Tembrock).

Global semiotics or semiotics of life is particularly significant for bioethics because of the broad context it provides for the problems at the centre of its attention (though this is not the only reason). And in fact, given that in the perspective of global semiotics semiosis and life coincide, the context

is far broader than that postulated by Saussure's semiology which studies signs in the sphere of social life.

On his part, Sebeok closely relates anthroposemiotics to zoosemiotics (the study of animal communication including nonverbal human signs) and to endosemiotics (the study, on both the ontogenetic and the phylogenetic levels, of cybernetic systems within the organic body). In Sebeok's view, biological and therefore biosemiotic foundations are the epicentre for studies on communication and signification processes in the human animal. Sebeok's semiotics unites what in other fields of knowledge and praxis is generally kept apart in the effort to justify needs of a specialized order, but also for the sake of useless and even damaging sectorialisations. This tendency is not devoid of ideological implications though often masked by motivations of a scientific order, and poorly so.

However, that global semiotics can provide bioethics with an adequate contextualisation is not only true in terms of extension, of quantity; a qualitative aspect is also involved. From this point of view "contextualisation" means *critical founding*. Global semiotics contributes to a *foundational and critical approach to bioethics*, that is, to its characterisation as a theoretical-philosophical discipline.

In fact the approach adopted by global semiotics is predominantly of an *ontological* order. Global semiotics refers explicitly to both Peirce's and Morris's semiotics as signposts, and no doubt their approaches are very broad — we know that Peirce went so far as to maintain that the whole universe is perfused with signs, if not made entirely of signs. However, beyond Peirce and Morris who limit their work to the phenomenological description of the various processes that may be interpreted as semiosical, Sebeok with global semiotics contributes to the reformulation of *ontology* in semiotic terms.

Sebeok's global semiotics interrogates itself on being, and does so *from the point of view of life*, for, as says Heidegger, the question of being is inevitably the question of that particular being for whom that question is vital. Indeed, not only is it a question of the life of the human individual or of all humanity, but also of *life over the whole planet* given the social system dominant today, that of global communication, and given, therefore, not only the pervasiveness but also the destructive potential of presentday anthroposemiosis. Global semiotics answers the ontological question by identifying *life* and *semiosis*.

With his global semiotics Sebeok may be considered as the author of such an ontological perspective, and of its diffusion among semioticians and cryptosemioticians. And all the different specialized contributions offered by those scholars who have contributed with different disciplinary competencies to the monumental *Handbook* take their place, whether consciously or unconsciously, in this particular setting. From this point of view, the *Handbook* in question is an official recognition of the status of Sebeok's global semiotics and of the accomplishment of his project. On the other hand, bioethics cannot ignore the benefits it may receive for its own philosophical vocation from global semiotics. And this is so not only because of the scientific analyses conducted by global semiotics in the different fields of biosemiosis on a phenomenological level, but *above all because the approach adopted by global semiotics as semiotics of life is primarily of an ontological order*.

Global semiotics starts from the hypothesis that semiosis and life coincide and focusses on the interconnection among signs. Its gaze moves from the protosemiosis of energy-information to the overall processes of the complexification of semiosis in the evolution of life over the planet: from prokaryotes to monocellular living beings to the eukaryotic aggregates which form the multicellular

organisms belonging to the Superkingdoms. The latter coexist and interact with the microcosm and together form the great semiobiosphere. All this results in an indissoluble interconnection as presented by the *network of signs*: in Sebeok's words, this network extends from the Lilliputian world of molecular genetics and virology, to the man-size world of Gulliver and finally to the world of Brobdingnag, the gigantic biogeochemical ecosystem called Gaia. At first sight this system may seem to be made of numerous separate living species, but at a closer look, we soon realize that each one of its parts, ourselves included, is interdependently connected with all the others. This system taken wholly, so to say, is the only ecosystem which may really be considered as such (even though it too only relatively).

As mentioned at the beginning, in addition to contextualisation of the phenomenological and ontological orders provided by global semiotics, another kind of contextualisation is also necessary for an adequate treatment of problems relevant to bioethics. We are now referring to the need of viewing bioethical problems in the light of today's socio-economic context, that is, in the context of *global communication-production*.

Such contextualisations are closely related and are so from the viewpoint of ethics. In fact, if we consider the contribution made by global semiotics to bioethics in relation to presentday global communication, semiotics is faced with an enormous responsibility, that of evidencing the limits of today's communication-production society. Semiotics must now accept the responsibility of denouncing incongruencies in the global system with the same energy, instruments and social possibilities produced by the global communication-production system itself. Semioticians must now be ready to denounce the dangers inherent in this system for life over the entire planet.

Today's phase in the development of the capitalistic system is that of "global communication". This expression may be understood in at least two senses: that communication is now characterised by its *extension over the whole planet* and that it is *accomodated realistically to the world as it is*. Globalisation implies the *omnipresence* of communication in production and characterises the entire productive cycle: not only is globalisation present at the level of the market, of exchange, as in earlier phases in socio-economic development, but also at the level of production and consumption. Globalisation is tantamount to heavy interference by communication-production not only in human life but in life in general over the whole planet.

For an understanding of world-wide global communication-production we need a view that is just as global. While the special sciences taken separately are not in a position to provide such a global view, the general science of signs or *semiotics* as it is taking shape today on the international scene thanks to the approach fostered by Sebeok and his ongoing work for further development, is.

A full understanding of global communication today implies a full understanding of the risks involved by global communication, including the risk of the *end of communication itself*. This risk, however, is not simply that of the rather banal phenomenon known as "incommunicability", theorized and represented in film and literature. What we are alluding to, instead, is the subjective-individualistic disease provoked by the transition to communication in its current forms (and which can no longer be separated from production). When we speak of the "risk of the end of communication", we are referring above all to the recognised identification between communication and life, and therefore to the risk of the end of life on the planet, considering the enormous potential for destruction in today's society by contrast with all other earlier phases in the development of the social system.

Therefore, the expression *global communication-production* does not only refer to the expansion of communication means and of the market at a world-wide level, but also to the fact that all human

life is incorporated into the communication-production system: whether in the form of development, well-being and consumerism or of underdevelopment, poverty and the impossibility to survive; health or sickness; normality or deviation; integration or emargination; employment or unemployment; transfer functional to the work-force characterising emigration or transfer of peoples in their denied request of hospitality, characteristic of migration; the traffic and use of legal commodities or of illegal goods, from drugs to human organs, to “non-conventional” weapons. Indeed, this process of incorporation is not limited to human life alone. All of life over the entire planet is now irremediably involved (even compromised and put at risk) in the communication-production system.

Reflection on problems relevant to bioethics today in the context they in fact belong to, the context of globalisation, requires an approach therefore that is just as global. An approach which does not simply consider partial and sectorial aspects of the communication-production system according to internal perspectives functional to the system itself; an approach which is not limited on an empirical level to psychological subjects, to subjects reduced to the parametres imposed by the social sciences — subjects measurable in terms of statistics. Global communication-production calls for a methodological and theoretical perspective just as global as the phenomenon under observation, a perspective in a position to understand the logic of global communication-production and to proceed therefore to a *critique* of the system it subtends.

An adequate analysis of today’s world of global communication in all its complexity calls for conceptual instruments which must be as *precise* as possible, and which a *new theory of communication* may furnish; these conceptual instruments must also be as rigorous as possible and this can only be provided through a philosophical grounding of such a theory. An attempt in this sense is made in the volume by Ponzio, *La comunicazione* (1999) as well as in the volume co-authored by Ponzio and Petrilli, *Il sentire nella comunicazione globale* (2000).

Social reproduction in the global communication-production system is destructive. Reproduction of the *productive cycle* itself is destructive. It destroys: (a) machines, which are continuously substituted with new machines — not because of wear but for reasons connected with competitiveness; (b) jobs, making way for automation which leads to an increase in unemployment; (c) products on the market where new forms of consumerism are elicited, completely ruled by the logic of reproducing the productive cycle; (d) earlier products which once purchased would otherwise exhaust the demand and which in any case are designed to become immediately outdated and obsolete as new and similar products are continuously introduced on the market; (e) commodities and markets which are no longer able to resist competition in the global communication-production system.

It is no incident that the European Commission which has devoted special attention to inventiveness and innovation functional to profit, to “immaterial investment” and “competitiveness” (cf. *Green book on innovation*, 1995), should identify “*innovation*” with “*destruction*” in full respect of capitalistic ideologic. The innovative character of a product is made to consist in its capacity for destruction: this product must destroy earlier products that are similar and still present on the market. The capacity for innovation abreast of the times coincides with the capacity for destruction to the extent that the criteria for evaluating innovation are completely adjusted to the interests of the market.

The *conatus essendi* of communication-production destroys natural environments and life forms. It also destroys different economies and cultural differences which in fact tend to be eliminated by the processes of homologation operated by market logic: nowadays not only are habits of behaviour and needs rendered identical (though the possibility of satisfying such needs is never identical), but

even desires and the imaginary tend to be homologated. The *conatus essendi* of communication-production also destroys traditions and cultural patrimonies that contrast with or obstacle or are simply useless, non functional to the logic of development, productivity and competition. It destroys those productive forces that tend to escape the limits of current forms of production which penalize intelligence, inventiveness and creativity by over-ruling them and subjecting them to “market reason” (and of course production cannot avoid this in the current phase of necessary investment in “human resources”). The destructive character of today’s production system is also manifest in the fact that it produces growing areas of underdevelopment as *the very condition of development*, areas of human exploitation and misery to the point of nonsurvival. This logic subtends the expanding phenomenon of *migration* which so-called “developed” countries are no longer able to contain due to objective internal space limitations — no doubt greater than in earlier forms and phases in the development of the social system.

Universalisation of the market, that is, application of the status of commodities to all things and relationships, is destructive; and the more so-called commodities are illegal and prohibited — think of drugs, human organs, children, uteruses, etc — the more they are expensive. The principle of exploiting other people’s work is destructive, work obviously costs less the more it produces profit: with the help of global communication developed countries are more and more turning to low cost work in underdeveloped countries (“stay where you are, and we’ll bring you work”). The disgrace of the communication-production world is particularly manifest in the spreading exploitation of child labour that is heavy and even dangerous (much needs to be said and done about children as today’s victims of underdevelopment, in misery, in sickness, in war, on the streets, in the workforce, on the market).

The destructive character of world-wide communication-production is also made obvious by war which is always a scandal. Global communication-production is the communication-production of war. War requires continuously new markets for the communication-production of conventional and unconventional weapons. War also requires increasing approval acknowledging it as just and necessary, as a necessary means of defense against the growing danger of the menacing “other”, as a means therefore of achieving respect for the rights of one’s “own identity”, “one’s own difference”. The truth is that identities and differences are not threatened or destroyed by the “other”, but by today’s social system itself which encourages and promotes identity and difference while rendering them *fictitious* and *phantasmal*. And this is precisely the reason why we cling to such values so passionately, a logic which fits the communication-production of war to perfection.

With the spread of “bio-power” (Foucault) and the controlled insertion of bodies into the production apparatus, world communication goes hand in hand with the spreading of the concept of the individual as a separate and self-sufficient entity. The body is understood and experienced as an isolated biological entity, as belonging to the individual, as a part of the individual’s sphere of belonging. This has led to the quasi total extinction of cultural practices and worldviews based on intercorporeity, interdependency, exposition and opening of the body (what remains is the expression of a generalized tendency to museumification; mummified remains studied by folklore analysts, archeological remains preserved in ethnological museums and in the histories of national literatures).

The technologies of separation as applied to human bodies, to interests, to the life of individual and collective subjects are functional to production and to identification of production and consumption characteristic of presentday production forms. With respect to all this and thanks to its ontological perspective, global semiotics (or semiotics of life) can, if nothing else, oppose a whole series of signs showing how each instant of individual life is wholly interrelated, even compromised with all other forms of life over the entire planet.

To acknowledge such interrelatedness, such compromise involves a form of responsibility which far exceeds all positive rights and all limited responsibilities, restricted responsibilities with alibis. Such acknowledgement is ever more urgent the more the reasons of production and of global communication functional to it impose ecological conditions which impede and distort communication between our bodies and the environment.

An ontological reformulation of bioethics on the basis of the semiotics of life and keeping account of the current socio-economic context of global communication helps single out two fundamental principles: *dispossession* and *extralocalisation*. These principles allude to the human individual as a living body interconnected with all other forms of life over the whole planet thanks to its condition of diachronic and synchronic intercorporeity: *dispossession* with respect to techniques favouring the body's subordination to the knowledge-power of *biopolitics* (Foucault); *extralocalisation* with respect to chronotopic coordinates, projects, structures and roles functional to reproduction in the economico-social form of global communication.

Dispossession and extralocalisation are manifest in the body's "escape without rest" from the techniques that wish to dominate and control it, and above all in its "persistence in dying". Dispossession and extralocalisation are principles that must be taken into account in the prolegomena for an approach to bioethics that is *critical, philosophical and theoretical*, this being the condition for acknowledgement of their moral and juridical status.

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