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Should science guide social change?

Science emerged in Europe as a marginal cultural phenomenon bearing no direct relation to the general currents of life which, in fact, was under the domination of other forms of social life and human creative activity. Today, however, the situation of science is such that it appears as a dominant social force playing a central role in the further development of the other spheres of human activity.

Even though science desires to know itself through the same means and methods in which it knows objective reality, it is often the case that our concepts concerning the nature of science are distorted by the images, so to speak, in which science is reflected in everyday life. Consequently, if we are to have a reasoned, measured understanding of what science is, we cannot justifiably consider the activity of scientific research and the forms of the social organization of science in isolation from the general kinds of social experience in which they take place. In other words, it is not possible to have a truthful and accurate conception of the nature and activity of science without considering the nature of the historical process in which science has changed and developed both in respect to itself, and especially in

respect to other spheres of social activity.

Generally speaking, there is only one science, that is, the science of history and human culture. Although we can divide this single science into the history of mankind and the history of the natural world, these are but its two basic complementary elements, not two independent entities. As long as human beings exist, we cannot discuss the nature of scientific knowledge without discussing the historical forms of human activity which engender and organize that knowledge (Marx, 1968). As long as human beings exist, nature exists as natural history, so to speak, and the context for our knowledge of the objective world of nature is socially organized human activity, along with the concrete forms of social organization as a whole (Ilienkov, 1988: 138-139). Consequently, in our discussion of the proper function and role of science, metaquestions concerning what we might call historical epistemology and cultural cognition acquire primary importance.

Whenever we examine science as a form of human social activity, rather than look for eternal verities and some kind of "higher," non-sensible reality, we must instead concern

ourselves with tendencies, patterns, and vectors in socio-historical development itself. Furthermore, we must also find the historical means and standards by which to evaluate such changing structures in terms of human self-realization and fulfillment. Even if we would say that these standards devolve from the concrete possibilities inherent in the present situation, we still must be able to evaluate these possibilities in terms of "good" and "bad," "progressive" and "reactionary," "desirable" and "undesirable," etc. In other words, we must find standards for knowledge and for the application of knowledge which are not objective in the strict traditional sense, but rather have a basis in culture as such, including morality.

What we might call non-empirical realities then become a principal criterion for defining and evaluating patterns of historical and cognitive development. Indeed, such factors as ideology and culture go hand in hand with scientific research and knowledge insofar as empirical research does not and cannot proceed without a set of values to guide its progress and its appropriation into daily life. There can be no value-neutral method of science, even if quantified, because in human society there are no value-neutral facts and events. Moreover, this is true of both social science and natural science — a clear vision of the issues and needs which provide the foundation and context for scientific research facilitates the attainment of precise, detailed, and accurate knowledge, as well as an awareness of its significance in terms of society and culture.

In this respect, values and ideas which arise outside of the scope of science itself, including the forms of activity which produce scientific knowledge, provide culturally, socially, and historically relevant cognitive standards by which to conceptualize and evaluate socio-historical events and facts. The danger here is that such ideological realities frequently motivate a distorted, abstract interpretation of social and natural history. Consequently, we are obliged to find means which enable us to evaluate competing moral and ideological standards. Although these standards constitute

realities which guide and evaluate cognition and conceptualization, they themselves are only one side of the larger development of history and society. Just as we cannot assume a teleological development in historical processes, nor a mechanical determination by fixed forces, neither can we maintain that any given concept or principle is able to eliminate absolutely the separation between consciousness and the world of which consciousness is but a part, as if it could provide us with an unassailable position by which to judge definitively any given contingency and sanctify, so to speak, a given concrete action (Merleau-Ponty 1968: 110-115).

Now, in order to understand science fully as a distinct type of human social activity, we must know the various forms which science has taken throughout its history (Misheva 1990). However, we can properly examine the nature and function of science only from within the very framework, so to speak, of those forms themselves, including the various cultural images of science. If we do not have a proper understanding of the social and historical processes in which science exists and develops, we remain subject in our scientific and scholarly research to those forces and processes which define not only the social context of science, but also the context of other types of cultural life. These forces then serve as blinders, as it were, which direct and shape our actions and thoughts without our full awareness of their influence. This calls into jeopardy our efforts to have clear and distinct knowledge of nature and human society.

The current social image of science, which focuses upon the role science plays in the growth of technology, industrial production, and the development of socio-economic life as a whole, including the transformation of information and the organization of society by corporate-style government, places science in the leading role among those forces which shape the general character of social development. The irony today is that we may not simply presume that this current social image of science, which supposedly elevates its prestige, dignity, and importance, does not

itself distort our understanding of the nature of science.

We have to ask whether or not the domination of social development by theoretical and applied science rather forces science to adopt a role which is not congruent with its nature. In addition, even if this role as a guiding force in social change is not in contradiction with the nature of science as such, is science by itself, unaided by any other type of values or ideology, capable of fulfilling it satisfactorily, or does science itself need the guidance of other standards? We must ask if science should instead be just one of the forces which are to guide the direction and pace of social development and change.

These questions challenge the basic themes of Bernal's "The Social Function of Science," namely, that it is the task of science, and of science alone, to lead the way in the reconstruction of society and the realization of social justice. He views science as being not only that type of human activity which gives us true knowledge about the objective world, but as also providing the means for the understanding and control of nature and mankind through collective reason and practice (Bernal 1939: 415). Do we not have sound reasons to question whether or not this attitude of Bernal does not itself arise from outside of the scope of science, rather being based on his convictions concerning social and political values?

We have to ask frankly if we can properly equate the rationalization of society with the control of social development by straightforward scientific interests. Is not the notion of the rationalization of contemporary societies much more closely tied not with the development and practical application of traditional natural science, but rather with such notions as the extension of political rights to all sectors of society, the realization of human rights through social reform, the democratization of public life, the limiting of the role and powers of corporate-style government, international cooperation for equal economic development, Third-World debt relief, the proper management and preservation of natural resources, the elimination of weapons

of mass destruction, and the creation of lasting peace in the world? It is difficult, at best, to speak of these concepts and values as "scientific" in much more than a metaphorical sense. However, is it not precisely these humanistic and moralistic concepts and values, rather than some need to inculcate the values of science into everyday cultural life, which both describe and articulate the need for social change, as well as set the agenda today for new economic, political, and social policies (Zviglianich 1989a: 193—195)?

Science is no longer a marginal cultural phenomenon, and it now is intimately involved in the general currents of social life. Even so, we doubt that there has been substantial growth over millennia in the actual ability of science to guide social change in an adequate and appropriate way. Contrary to certain expectations, it is instead obvious that the politicization of society, a process common today to countries in both East and West, has become a more powerful and effective force for social change than the scientification of society as a whole and the intellectualization of the various spheres of social life. Perhaps this is the case because of the basic lack of criteria for a proper appreciation and evaluation of human values and cultural ideals which is in the very nature of science. Science is guided by the ideal of objectivity, and we may view the history of science as a methodical struggle against subjectivity in matters of knowledge and truth. However, is it possible for a fight against subjectivity to be also a fight for humanity? Does not such a struggle against subjectivity in its very principle leave the values which are fundamental to both individual and collective human existence, insofar as they possess an irrepressible subjective character, outside of the rational structure of scientific knowledge? Perhaps the proper question is not whether science should direct social development, but whether it is capable at all of doing so. Perhaps the proper social function of science is to judge and evaluate the objective character of social change, and not to be its guiding force. After all, it is one thing that science should be an immediate force in the material production of society, but quite another

for it to be the standard, norm, and means for all social development.

Today perhaps only notions of universal human rights, a profound sense of tolerance, and an emphasis on the irreducible value of individual and collective human life can provide justifiable and acceptable standards by which to guide the process of social, intellectual, and political renewal, the need for which is felt throughout the world (Zviglianich 1989b: 97—114).

REFERENCES

- Bernal, J. D.
1939 *The Social Function of Science*. London: Routledge.
- Ilienkov, E.
1988 *Dialektika i svetogled (Dialectics and Worldview)*. Sofia: Partizdat.
- Marx, Karl.
1968 "The German Ideology" in *Selected Works in One Volume*. New York: International Publishers.
- Merleau-Ponty, M.
1968 *The Visible and the Invisible*. Evanston, IL: Northwestern University Press.
- Misheva, V.
1990 "Historical Transitions in the Socio-Historical Position of Science." In preparation.
- Zviglianich, V. A.
1989a *Nauchnoe poznanie kak kul'turno-istoricheskij protsess (Scientific Knowledge as a Cultural-Historical Process)*. Kiev: Naukova Dumka.
1989b *Politika realizma (The Politics of Realism)*. Kiev: Politizdat.
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