

Workers of all countries, unite

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Cybernetics is the "science" of obscurantists

Mikhail YAROSHEVSKY

The bourgeois press widely publicized the new "science" of cybernetics. The authors of cybernetics explain why they christened their concept with this enigmatic term: "The term cybernetics, borrowed from ancient Greek, means 'the art of navigation' and refers primarily to work designed for the automatic control of ships."

This fashionable pseudo-theory, advanced by a troupe of American "scientists," claims to solve all fundamental scientific problems and save humanity from all social ills. The cybernetic craze has spread across diverse fields of knowledge: physiology, psychology, sociology, psychiatry, linguistics, and elsewhere.

According to cyberneticists, the inspiration for their pseudoscience was the similarity between the human brain and modern complex machines. This similarity is seen in the fact that both the brain and the calculating machine are "devices that receive information and use it to obtain answers to questions and solve complex problems." Cyberneticists identify the magnetized tape fed

into the calculating machine with the sensory organs , the pulsation of the mercury column with memory processes, radio tubes with the nerve cells of the brain, and the flow of electrons with mental activity.

When discussing the possibility of creating a mechanical apparatus "that could be placed next to the human brain or even higher than it," cyberneticists see only technical difficulties on the path to solving this problem: an electronic calculating machine contains 18,500 light bulbs, while the brain consists of more than 10 billion "radiolae" (nerve cells).

Therefore, if machines are still, as is obvious to everyone, unable to design and improve other machines, conduct scientific research and create philosophical systems, even such primitive ones as cybernetics, then the reason for this, in the opinion of cyberneticists, should be sought only in the fact that engineers have not yet been able to assemble counters with a sufficiently large number of elements, corresponding to the number of elements in the cerebral cortex.

Cyberneticists don't bother to back up their monstrous claims with any scientific argumentation, but instead strive to astound the uninitiated with reports of the speed and precision with which machines perform arithmetic operations: one mathematical machine performed two hundred thousand multiplications and five hundred thousand additions in five minutes; another, in the space of a day, calculated pi (the ratio of a circle's circumference to its diameter) to 2.048 decimal places, while the English mathematician Shanks, after 15 years, calculated the same value only to 707 decimal places, and so on.

These examples, used by cyberneticists as the main support for their shaky constructions, are needed to "prove" the machine's intellectual power, its identity with the human brain, even its superiority.

Needless to say, mathematical machines, capable of performing complex computations at incredible speed, are of colossal importance for many fields of science and technology. Renowned Russian scientists such as P. D. Chebyshev, A. N. Krylov, and others played a prominent role in the development of machine mathematics. Soviet scientists are continually improving mathematical machines. One of the greatest achievements in this field is the automatic, high-speed electronic computers of Soviet design.

But what do the claims of cybernetics have to do with the progress of science and technology? A schoolchild knows that, no matter how ingeniously designed a computer may be, it is simpler than the simplest single-celled organism, possessing irritability and rudimentary sensation, feeding, crushing itself, and performing a host of other processes absent in inanimate matter.

The concept of a "thinking machine" promoted by cyberneticists is completely unscientific. Cyberneticists portray the machine as capable of logical reasoning, formula manipulation, and so on. In reality, a mathematical machine merely dramatically reduces the time spent on calculations, while the meaning of these calculations—the meaning of units and how to operate with them—is incomprehensible to either a lifeless machine or a person ignorant of mathematics.

The idealistic nature of cyberneticists' epistemological exercises is no less evident in their attempts to derive a criterion for the truth of knowledge from the operation of calculating mechanisms. Where is the guarantee of the correctness of the calculations performed? Cyberneticists resort to all sorts of tricks to "prove" that the machines themselves are capable of verifying the validity of the conclusions they draw.

In Philadelphia, a binary electronic counter was constructed, consisting of two sub-counters, each calculating simultaneously at the same speed; the results obtained were automatically verified. According to cyberneticists, this self-checking principle underlies the ability of the "brain and other calculating apparatuses" to correctly solve intellectual problems and avoid falling prey to illusions. The inconsistency of this entire false argument is clear to any unbiased reader. If both counters—or any other number of them—had the same design flaw, they would, when operating perfectly in sync, produce the same result, which would also be incorrect. Two cyberneticists—or any other number of them—may reiterate the same hackneyed idealistic propositions with equal stubbornness and draw the same incorrect conclusions from them, but this will not make either the propositions or the conclusions more reliable.

The cyberneticists' claims are incredible. They claim to possess a universal master key not only to physiological, psychological, and epistemological problems, but also to all other issues, including the pressing issues of sociology. They attempt to transfer the principles and methods of their pseudoscience to the behavior

of human groups. Beginning with the assertion that the laws governing individual activity are supposedly no different from those of a refrigerator thermostat or a ship's gyrocompass, cyberneticists then attempt to interpret the entire society as a collection of automated devices, the interactions of which can be explained by a suitable mathematical expression.

The unique feature of a robotic "community," according to cyberneticists, is that gestures or words act as the impulse that sets the "social mechanism" in motion. Moreover, language, a complex tool for exchanging thoughts developed by people over centuries, is in turn depicted by cyberneticists as a complex set of physical processes—the vibrations of sound waves. Fearing the will and intelligence of peoples, cyberneticists entertain the idea of transferring vital functions inherent in humans to automated devices.

Is it possible to replace the proletarian standing at the conveyor belt, striking when wages are cut, voting for peace and communists, with a robot with an electronic brain?

Couldn't we send an unfeeling metal monster instead of a pilot who refuses to kill women working in the rice fields?

In a frantic attempt to realize its aggressive designs, American imperialism is throwing everything at the table—bombs, plague-ridden fleas, and philosophizing ignoramuses. It is through the efforts of the latter that cybernetics has been fabricated—a false theory utterly hostile to the people and science.

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