linking together all parts of the cortex that makes trillions of possibilities. In some respects, the human brain puts to shame the most complicated and advanced computers. Although the brain is finite, it has infinite potentialities. Man's thinking apparatus is the product of an interacting biological and cultural evolution in which man became a tool-making and speech-communicating animal(e).

Early man stood in awe of the forces that dominated him and that he could not possibly understand. To him these mystical powers could only be conceived as unknowables. But superstitions of metaphysical(f) and religious "unknowables" persist even today, primarily because they are fostered (whether deliberately or not) as props for the status quo. When confronted with the embarrassing refutations of their mysticism by the results of scientific analyses, they can only dismiss these analyses as "dabbling in unknowables."

"Unknowables" and "unknowns" are not synonymous terms. There are no unknowables in the sense of unknowable, mysteriously uncaused(g) explanations for material phenomena. The assertion that we can never know what Julius Caesar ate for breakfast on April 2, 60 B.C. is an irrelevant argument and has nothing to do with the question. The nature of the *processes* at work in the past, at present and in the future are knowable, despite our colossal ignorance.

Further, much of yesterday's unknowables have become today's knowns, especially on those very matters which disturb the proponents of the "unknowables," such as the origin of the earth and the origin of life. To be ignorant of scientific answers does not mean that man is incapable of filling in the immense gaps in his knowledge in the aeons of time in the future. We have already indicated the infinite capacities of the human brain.

SUMMARY

The scientific view of materialism is based on the *primacy*(h) of matter. Materialists realize that ideas, themselves, are materialistic phenomena. The mind, the thought process, is the *functioning* of a brain in the same sense that digestion is the functioning of a stomach. On the other hand, the idealists assume the *primacy* of ideas. To them, the motivating forces in social change are changing ideas(i).

The materialist conclusion of scientific socialism is rooted in the realization that everything in infinite existence is interrelated, i. e., all existence is monist and in a constant process of motion and change. There is neither rest nor dualism in nature.

(e) For a Marxism study of the origin of man, Pannekoek's "Anthropogenesis" is invaluable. It is sad that this important work is now out of print.

(f) Metaphysics is concerned with ultimate answers that go beyond the scope of physics or nature. They seek for purpose (teleology) and universal principles, independent of time and place. They do not recognize that there is no design or plan in nature. The task of scientific knowledge is to find out what took place and how it took place and then we get the answer why it took place.

(g) The alleged non-caused behavior of quantum mechanics which assumes that such behavior is "intrinsically indeterminate and erratic" seems to refute our contention. However, statistical laws give a seemingly regular and causal behavior to collections of large number of submicroscopic systems. (For a review of this question, see Vol. I, No. 3-1960, Studies of Left, p. 71.)

(h) Primacy, here, refers to first in time. The old stickler: "which came first, the hen or the egg?" has been settled by evolutionary science. It couldn't have been the hen, except as an argument, in a vacuum.

(i) Marx' famous statement in the Preface to "The Critique of Political Economy" is worth quoting here: "It is not the consciousness of men that determines social being but, on the contrary, it is their social being that determines their consciousness."

Specifically, capitalism played a vital historic role in the order of social evolution. However, it has now outlived its usefulness. It can no longer be administered or operated in the interest of society. Capitalism has made socialism possible, practical and necessary by socializing production into a world economy so that potential abundance has now become available to all mankind.

This brief panorama of science deals with socialism as the science of generalizations, capable of correlating the evolution of existence in its almost incomprehensible infinity — from energy to capitalism.

Note well the serious limitations of bourgeois scientists. In the "exact" sciences, they *must* concentrate and specialize on smaller and smaller aspects of existence and confine themselves to their specific fields and their employers' needs. (Only too often at the sacrifice of correlating their studies with the world around them.) Likewise, the "social" scientists find themsves faced with the necessity of rationalizing their conclusions within the framework of the status quo. (This, despite a growing awareness, on the part of so many, of the grievous flaws of such approaches.) Under socialism, science and scientists will really blossom.

One of the inspirations of socialism is that it will free the victims of capitalism from its stultifying restrictions. It is now possible for human beings to live useful, satisfying, *full* lives doing the things they love and enjoy.

RAB

CAPITALIST "FREEDOM" OR FREEDOM FOR ALL

"Freedom" is one of the cliches of the speechmaker and the editorial writer. We are told that America — more than other lands — is the land of freedom and that we should be thankful for this freedom to the point of being willing to die for it. But when we turn from the rhetoric and the distorted images of reality fed us by the "free" press and look at the real situation we see rather than freedom the desperate, driven lives of the "little" men entrapped in a prison system that makes a mockery of freedom. This is freedom? For whom and to do what? It is time that those who are serious about a love of freedom asked some questions.

For instance, how much freedom does the average person have? If, upon reflection, he does not really seem to have much meaningful freedom then we must question this ideal for which so many have sacrificed and died. Is it nothing but a mirage? Nothing but another phony part of the current scene about which we give up hope? Is freedom really possible?

SOCIETY DETERMINES FREEDOM

Human freedom must, of course, be relative since as men we are subject to the physical and biological limitations imposed by nature. Further, one man's freedom is potentially limited by another man's freedom. However, these truisms do not take us very far because within these natural limits there is still a tremendous area that could be made available to human choice. The extent to which this area is available depends on how much freedom is permitted by the social organization of men. It is social organization, not the physical reality of our human condition or the conflicting rights of our fellows, that is at the center of the controversies about freedom. The question can be stated as: what form of social organization maximizes possible human freedom? Does capitalism? Capitalism does provide more freedom than previous social systems such as feudalism or chattel slavery but the real question is whether it is possible to go beyond the chains imposed by