pro-consciousness philosophers have typically regarded consciousness as nothing but cognition, as if values and action were incidental or dispensable. But if we are to understand consciousness, we must never lose sight of the biological fact that consciousness informs the organism about its environment for the sake of motivating, sustaining, and directing *action*, the action its survival requires.

Knowledge, for any conscious organism, is the means of survival; to a living consciousness, every "is" implies an "ought." [VOS, 24]

And if we are to understand *man's* consciousness, we must bring the same biological perspective to our consideration of his distinctive attribute: his rational faculty. Man's capacity of abstraction and thought is the product of natural selection. Each genetic variation in the makeup of our anthropoid ancestors that enhanced their brain-power gave them a survival advantage. Man's reasoning mind is a survival instrument, just as his heart and liver are. The ability to abstract, conceptualize, and think is not only pro-survival, it is *man's basic means of survival*.

Whether devoted to building a hut or measuring the speed of light, human thought is, in its biological origin and essential function, a tool of survival. Yes, man can misuse his mind—he can sever the connection of his mind to reality and drift among imaginary "constructs" of his own devising; but he can misuse any part of his body, too. The mind, like the body, is an instrument of survival, despite the fact that man does not automatically treat it at such.

Philosophers standardly ignore the biological function of consciousness. They consider only consciousness' latest evolutionary development — thought — while ignoring the entire, eons-long evolutionary development, of which thought is the most complex form. Thinking just is, they assume. And then they wonder if computers can think. My answer is that before a computer can think, it must be able to understand ideas (concepts); before it can grasp ideas it must be able to perceive the world, feel emotions such as joy and suffering, desire and fear, pleasure and pain; before it can feel emotions, it must be alive — which entails being able to act to sustain itself. We can dismiss questions of whether or not a computer can think until one is built that is alive. Only then it wouldn't be a computer, but a living organism, a man-made one.

Biologically, seeing is for moving, ideas are for doing, theory is for practice. A word of caution is needed here. The philosophy known as "Pragmatism" is merely the other side of the same false alternative: cognition vs. action. In pseudo-rebellion against divorcing ideas from action, Pragmatists divorce action from ideas. An idea, they say, is nothing but "a plan of action." This is wrong. An idea is *for the sake of* planning action, but an idea is cognition, an awareness of some fact of reality. (Pragmatists are primacy-of-consciousness philosophers; they award primacy not to existence, but to some undefined jumble of existence and consciousness, which they call "experience.")

To make a plan of action, you must *know* something. For instance, to plan a plane trip to Detroit, you must know that there are planes, that Detroit exists, that there are airports, plane tickets, money to buy them with — and all the facts that newborn infants don't know — which is why they cannot form a "plan of action" regarding plane trips, or anything else.

Awareness of reality — cognition — is what makes possible any plans of action. We have to know the world in order to act successfully in the world.

It in no way denigrates ideas, in no way reduces them to "expedients," to remember that they are for the sake of guiding action. It is not that, as the Pragmatists say, we have to "play it by ear," "go with the flow," and engage in blind groping. We act on the basis of *knowledge*. And we do so even when we act on the basis of probability rather than certainty — knowledge of what is more probable vs. less probable is still knowledge, a very sophisticated form of knowledge. Those who lack this knowledge are ill-advised to invest in the stock market.

Much later in the book, we will see that conceptual knowledge builds in a hierarchy, ascending from the concrete to the abstract. We will see that, in contrast to conventional wisdom, the more abstract the knowledge, the more potent it is. At this point, I will only assert that a very abstract form of knowledge — knowledge of *principles* — is the most powerful of all. Principles are, of course, exactly what Pragmatism rejects. Pragmatism opposes principles on principle.

Contrary to the claims of Pragmatism, abstract principles, including the principles of morality, are man's indispensable guide to coping with the demands of life and acting successfully in the world.