The Missing Element in Popper's Evolutionary Epistemology[1]

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> [Humankind] holds a unique position. [It] brought into the world an element alien to the animals, but what this is still remains a problem. (Jaspers, 1997: p. 594)

1. Introduction

Is humankind worth saving from whatever might threaten it, if not, then why not, and if so, then why and how? To answer these questions, it is necessary to define the philosophical concept of "human being." Today, there are several approaches: the human being as a person, the human being as any representative of the Homo genus, the human being as a representative of the species classified as Homo sapiens, human beings as all people collectively, human beings as a phenomenon beyond living nature, and so on. At the beginning of our discussion, a brief natural-scientific overview will be required. I then propose to consider the new quality of human existence as a social-cognitive system. After that, I will sequentially discuss the importance of language, time systems in language, and the definition of the absolute problem. I propose an improvement of the scheme suggested by Karl Popper in his important article, "Evolutionary Epistemology" (Popper, 1985). Finally, I offer a hypothesis for an all-encompassing philosophical definition of the term "human being." By virtue of this hypothesis, I will provide answers to the questions raised at the outset.

2. A Natural-Scientific Preface: Qualitative Transitions

Before discussing Popper's evolutionary epistemology, I want to draw attention to the sequence of qualitative transitions in the evolution of nature. The natural-scientific facts and hypotheses presented are widely known. I will present them in sequence, focusing on key moments in the development of nature on our planet. I have named them "qualitative transitions":

> **0.** Earth before the appearance of organic matter. The inorganic chemistry of the Earth is constituted by hundreds of thousands of chemical compounds.
>
> **1.** The emergence of carbine—a stable chain of carbon atoms—forms the organic chemistry division. Organic matter allows for infinite variability of

[1] This essay was translated from Russian into English by ChatGPT-3. The translation was reviewed by the author and then final-edited by *Borderless Philosophy*'s editorial team.

compounds. There are tens and hundreds of millions of known compounds. This is the first qualitative transition I am proposing.

2. The infinite variability of organic matter evolves into molecules of ribonucleic acids (RNA), which exhibit the ability to regulate reactions and replication. The so-called RNA world is the second qualitative transition.

3. The further selection of molecules evolves into molecular specialization. Deoxyribonucleic acids (DNA) become the storage of information, protein molecules regulate reactions (enzymes), and RNA molecules remain the replicator of proteins according to the central axiom of molecular biology. This qualitative transition leads to the appearance of the compartment of prokaryotic cells. This is the appearance of life as a phenomenon—the third qualitative transition;

4. Prokaryotes have the characteristic that DNA is unstable in the cytoplasm of the cell and often mutates. This allows bacteria to quickly adapt to the external environment. However, this property makes it difficult for prokaryotes to form multicellular organisms. Multicellular prokaryotes evolve out of existence. But eukaryotic cells arise, where DNA is stabilized in the nucleus of the cell, the physical volume of the cell increases, and the set of constantly acting enzymes expands. This makes it possible to build multicellular organisms. This is the fourth qualitative transition.

5. Multicellular organisms gain the ability to specialize their cells within the functions of a single organism. The fifth qualitative transition thereby occurs: the appearance of nerve cells that transmit signals. Perhaps this moment can also be called *the emergence of abstract information as a phenomenon*. Molecular signals of cell receptors, RNA, and DNA information are inseparable from their physical structure. And the same cluster of nerve fibers can transmit different information, separating the meaning of the signal from the immediate physical structure of nerve cells.

6. Nerve cells form neural networks of increasing complexity. Neural networks make it possible to build a set of specialized information processing systems: the brain. Thus, the phenomenon of consciousness arises—the sixth qualitative transition. This is the level of animals with developed nervous systems and brains.

7. Based on an individual biological neural network such as the brain, representatives of the species Homo sapiens develop language as a means of processing abstractions in the temporal continuum and social space. It is this

qualitative state of man as a social-cognitive system that will be discussed further.

3. The New Quality of Evolution

Popper provides an account of the evolution of theories, revealing analogies with the development of life. His first thesis says that human knowledge functions by eliminating errors in order to adapt sufficiently to reality. This can be represented as a simple schema in which the problem is P_1, tentative theories are TT, the process of error elimination is EE, and the new problem is P_2:

$$P_1 \rightarrow TT \rightarrow EE \rightarrow P_2$$

Popper also emphasizes the role of language outside of the schema:

> What enables a human scientist like Einstein to go beyond the amoeba is the possession of what I call the *specifically human language*. While the theories of the amoeba are part of the organism of the amoeba, Einstein could formulate his theories in language; if needed, in written language. He could in this way put his theories outside his organism. This enabled him to look upon a theory *as an object*; to look at it *critically*; to ask himself whether it can solve his problem, and whether it could possibly be true; and to eliminate it if he found that it could not stand up to this criticism. It is *only* the specifically human language which can be used for this kind of purpose. (Popper, 1985)

The peculiarity of human language lies in the ability to create abstract objects, models, and theories that exist outside physical reality. In this case, we are talking about theories as objects of abstract thinking. The selection of theories allows for the exclusion of errors while preserving the thinking subject.

It is worth noting that any consciousness is capable of creating abstract images. Animal consciousness is capable of imagination in principle. It is important to distinguish between imagination, which is present in animals, and imagination expressed by symbolic language. A theory is an expressed symbolic image or model of an image. Therefore, images expressed by symbolic language are capable of existing in a social continuum. Images and theories from the minds of individual beings can be transmitted to society through a common system of abstract symbols. Linguistic symbols allow for expressing the same theory or creating the same model or representing the same image in different minds. Such a system can be represented as a socio-cognitive system. A socio-cognitive system is a metaphysical ecosystem for theories. The discussion and criticism of theories are the life and death of theories in society. We select theories through the exchange of judgments in a commonly accepted language. This means that language acts not only as a means of individual

thinking but also as a means of uniting individual consciousnesses into a socio-cognitive system. With the help of language, the Homo species has acquired a qualitatively new socio-cognitive system.

As an illustration of an alternative scenario, let us imagine that a brilliant prominent figure—a famous artist, a leading scientist, or a great writer—lacks social context and an audience, whether in the present or in the future. Suppose that the individual can perform brilliantly, but without an audience, and can create brilliant works but cannot publish books or videos for contemporaries or posterity. One can produce, but cannot transmit information to the society. Would such creativity be an act of self-realization? What is the value of the ability to create without the ability to engage in social exchange? Nothing. Any knowledge and skills of the individual without exchange with the social system will remain unrealized. Even a physical object, if created but not shown to anyone, does not exist for the human as a socio-cognitive system. This highlights the necessity of understanding the human as a system of "individual-society." It follows that the dichotomy between collectivism and individualism is erroneous. Society desperately needs brilliant individuals for its development, just as brilliant individuals need society for their creative realization.

Henceforth, when employing the term "human," I shall adhere to this socio-cognitive interdependence between the individual and society.

4. The Role of Language in Popper's Theory of Cognition

In Popper's philosophy, language is portrayed as a tool for criticism:

> [I]n the evolution of man, the descriptive function of the human language has been the prerequisite for critical thinking: it is the descriptive function that makes critical thinking possible. (Popper, 1985)

Popper observes regular changes in language and states that "[e]ach such step is a *linguistic* innovation, an invention" (Popper, 1985). Let us take the example of the atomic model of matter. Democritus characterized atoms as microscopic pieces of matter possessing roughness, sharpness, or smoothness, upon which the nature of our perception of substances depended. This was followed by Thomson's "plum pudding" model, then Nagaoaki's planetary model, and later Rutherford's. However, all these theories contained irreparable errors and turned out to be incompatible with reality. The emergence of quantum mechanics as a qualitatively new language allowed for an adequate formulation of the atomic model of matter. Thus, in our social-cognitive imagination, the "atomic theory" emerged in the form of a nucleus with an electron cloud around it. This model was inconceivable to us before the advent of the new language of quantum physics.

Periodic changes in language or the emergence of qualitatively new languages allow us to speculate that language must participate in the scheme of theory evolution. Then, the scheme will be able to reflect qualitative transitions similar to those that exist in developing nature.

5. A System of Tenses in Popper's Reasoning

In the 5th part of his essay entitled "Language," Popper, referring to Bühler, defines the narrative possibilities of language as a "descriptive function" that allows us to think not only about what currently exists, but also about what does not exist:

> According to Bühler, human language and human language alone, introduces a revolutionary novelty: it can *describe*; that is, describe a state of affairs, a situation. It may be a state of affairs that is present at the instant of time at which the state of affairs is being described, such as: "our friends are coming now"; or a state of affairs that has no present relevance, such as: "my brother-in-law died 13 years ago," or a state of affairs that may have never taken place and may never take place, such as: "far behind this mountain there is another mountain that is made of solid gold." (Popper, 1985)

Popper does not explicitly indicate a system of tenses in language, but such a system follows from the "revolutionary novelty" of language in describing models: the ability to describe what does not currently exist. It is precisely the past and the future that do not currently exist. The past no longer exists, and the future does not yet exist. The concepts of possible past or future can only be expressed in the system of tenses, and only through the means of language. There are no other means of expressing the temporal continuum in nature. Even mathematics and logic do not have a system of tenses comparable to the structural system of language. In mathematics, there is parametric time, but it has no directionality. T-symmetry or time reversal symmetry is the theoretical symmetry of physical laws under the transformation of time reversal. For the most part, the laws of physics do not specify an arrow of time or require any process to proceed both forward and in reverse, even despite its theoretical possibility. The past and the future as logical concepts do not exist. Temporal logic operates with parametric time. In relation to the continuum of time, the language of abstract symbols with a system of tenses is unique.

Later in Popper's article, we see a mention of time in section 6, which is entitled "How Did the Descriptive Function Evolve?":

> But there is a most important difference between the biological situations of the bee language and the human language: the descriptive information conveyed by the dancing bee is part of a signal for the other bees; and it is its main function to incite these other bees to an action that is useful here and now; the information conveyed is closely related to the present biological situation. As opposed to this, the information

> conveyed by human language may not be immediately useful. It may not be useful at all, or useful only years later and in a totally different situation. (Popper, 1985)

Here we can see how the temporal continuum gives human language a specificity relative to the living world. In the animal world, everything happens "here and now, with a signal-action linkage. The exchange of signals between animals requires recognition of the "here and now" signal, but does not require an understanding of theory about the future. The specificity of human information is that it does not necessarily require an immediate reaction, but it does require an understanding of theory. The specificity of language is that it is capable of transmitting not just signals, but also theoretical models—conveying the image of something that does not yet exist. If a theory existing in the future temporal continuum does not require immediate action, it still requires understanding for future action.

Understanding is the next phenomenon that we need to pay attention to. Heidegger emphasized the importance of time for understanding:

> Our provisional aim is the Interpretation of *time* as the possible horizon for any understanding whatsoever of Being. (Heidegger, 1962)

In his article "The Rediscovery of Time," Ilya Prigogine writes,

> Time is not only an essential ingredient of our internal experience and the key to understanding human history, both at the individual and at the social level. It is also the key to our understanding of nature." (Prigogine, 1984)

To illustrate the importance of the concept of time in the context of understanding, imagine an unknown mechanism or model. If it doesn't move, or if you can't imagine how its constituent parts move, then it's impossible to understand the principle of its operation. Movement is dynamics. Dynamics implies action in the continuum of time. Without movement within the model over time, it is impossible to understand the model. To describe any model in a socio-cognitive system, language requires a system of tenses. This means that the presence of a system of tenses in language is a critical property of language for understanding.

As I noted earlier, there are no cognitive systems in nature that have a temporal continuum similar to that of the socio-cognitive system of human beings. Every action in nature occurs only "here and now." Nature does not maintain an abstract historical chronicle, nor does it create abstract multiverse future possibilities. From this it follows that nature is not capable of creating models and theories to conduct their selection, to determine future obstacles in the work of theories. For example, the living nature of planet Earth does not have theories about the life cycle of stars. According to the observable human life cycle of stars and the transfer of this model into the future

of our star, in a few million years, the Sun will evaporate all the water on our planet. Then, in a few billion years, the Sun will burn the Earth itself. For the living nature of planet Earth, this problem does not yet exist. For living nature, there are no problems in the non-existent future at all. This is precisely because an abstract continuum of time does not exist in nature. Extinction of species, changing conditions and ecosystems—nature selects only those organisms that are adapted to the current situation here and now. Nature does not have an abstract "time machine" of language. Such a machine exists only in humans. It is the language of abstract symbols in the system of times.

6. A Problem in Popper's Theory of Cognition

In Popper's theory of cognition, there is no indication of exactly which problem the process of knowledge begins with. The problems "are originated," but how? And what is this problem? Let us attempt to identify the very first problem from which the progress of knowledge begins.

Popper writes that "[a]ll organisms are problem solvers: problems are originated with the emergence of life" (Popper, 1985). What problem arose with the emergence of life? Before the appearance of life, there was no death in nature. If death is the cessation of life, then there was nothing to cease in the absence of life. Death is a fundamental obstacle to life. All other problems are only significant as "obstacles to life" if they can lead to death. We perceive disease as a problem only if it leads to death. Cold does not scare us in and of itself, but only in cases where the organism's cooling threatens death. Hunger, safety, and ecology: all of these are perceived as problems only in the context of the threat of death to the socio-cognitive system.

It is self-evident that any animal can distinguish between something dead and something alive, here and now. However, how can one understand the problem of death for one-now-alive in the present context for one-being-dead in the future? This can be done only by using the language of abstract symbols in a system of time. Animals get by without this ability by means of seeking adaptability. This process is called *natural selection*. All selected reactions of animals lead to the continuation of their lives in accordance with adaptation to existing circumstances. Thus, animals do not solve problems, but adapt to them. Therefore, living nature does not require an understanding of problems. Living nature is enough to generate life in the form of attempts. And selection will leave only the correct attempts, corresponding to the current reality. This type of development does not require nature to understand problems and create theories that allow for overcoming future problems. This energy of life can be correctly called "survival." In the process of selection, the adapted survives, even without understanding exactly which problem it had to adapt to.

Therefore, I suggest distinguishing between the terms "survival" and "overcoming." The term "survival" does not require knowledge. The term "overcoming" requires: (1) understanding the obstacle-problem in the future through the language of abstract symbols in the system of time, (2) constructing a hypothesis of freedom from the problem in the future through the language of abstract symbols in the system of time, (3) building and evolving theories of overcoming problems using special languages (mathematics, logic, economics, physics, chemistry, etc.), and (4) evolving special languages (arithmetic and algebra, chemistry and organic chemistry, physics and quantum physics, etc.).

7. A New Theory of Cognition

As we have seen, language plays a much greater role in the evolution of knowledge than merely as a means of criticizing theories. Language is the means of understanding *the problem*, and therefore language is the first element in the theory. In the process of the evolution of theories, language can reflect qualitative transitions in the evolution of knowledge. Language is the missing element in Popper's scheme of evolutionary epistemology.

With the help of language with a system of time (L_1), humans as a socio-cognitive system can understand the absolute problem of death in the future, in the temporal continuum which does not yet exist. In the presence of the absolute problem, humans can establish a hierarchy of problems and prioritize them for the evolution of theories. In this case, any problem will find its place relative to the absolute problem. To move towards solving the hierarchy of problems, humans create special languages (L_2, L_3, etc.) like mathematics, logic, physics, quantum physics, biology, bioinformatics, and so on, revealing new spaces of problems for further evolution of theories:

$$L_1 \rightarrow P_1 \rightarrow TT \rightarrow EE \rightarrow L_2 \rightarrow P_2$$

This theory can transform into a branching tree with the root at point L_1. Thus, the language of abstract symbols in the system of time serves as the starting point for knowledge and development in general. Specialized languages serve as a boundary for qualitative transitions in the evolution of knowledge.

8. The Answer

In their book, *The Design Way*, Harold Nelson and Erik Stoltermann point out that

> [t]he dominant trigger for initiating change in human affairs is, today, primarily based on the existence of a clear and immediate understanding of a particular problem or set of problems. Political action, professional performance, economic decisions, social

> planning and business choices are almost entirely justified on the grounds that life is a set of problems requiring practical, efficient and effective solutions. Much of formal education or training is based on preparing students to better identify and solve problems creatively, quickly, fairly, rationally and prudently. This essentially reactive mode, applied to every realm of life, is reinforced and supported by well-developed procedures for problem solving. Horst Rittel … has identified such procedures as *tame problem solving procedures*." (Nelson and Stoltermann, 2012)

Here, Nelson and Stoltermann are talking about the successes of a problem-oriented approach to design. I completely agree with this approach, as it provides an excellent basis for the effective development of humanity. The process described by the authors fully aligns with my earlier description, which I have substantiated above. Clear understanding of a problem is critically important for initiating the process of development. I have emphasized the role of language in this process, specifically the importance of the language's system of tenses. Understanding a phenomenon is the starting point for problem-solving, which is crucial. The process of development does not begin with any actions, but rather with the understanding of the problem. Only after understanding the problem can theoretical and practical solutions be proposed.

However, the authors note that there are complex problems that do not lend themselves to simple formalization:

> Tame problems are appropriate for simple or trivial concerns, but more important or significant issues are better characterized, according to Rittel, as *wicked problems*. By treating a wicked problem as a tame problem, energy and resources are misdirected, resulting in solutions that are not only ineffective, but can actually create more difficulty; because the approach used is an intervention that is, by necessity, inappropriately conceptualized. (Nelson and Stoltermann, 2012)

Difficulties with formalizing the problem impede goal-setting. Without a clear goal, it is difficult to plan purposeful activity, and resources may be expended without visible progress. So, what is it about wicked problems that makes them so easy to get tangled up in? Why is it so difficult to break them down into a hierarchical structure of tamed problems and assign clear goals? In my view, in their reasoning about solving wicked problems, Harold Nelson, Erik Stolterman, and Horst Rittel have encountered precisely what was lacking in Popper's theory: the absolute problem is not defined. If the absolute problem is not defined, then it is impossible to construct a hierarchy of problems. For this reason, the project approach fails in complex solutions.

I propose that the absolute problem is *death*. Then all wicked problems become a hierarchy of tame problems. It may be an infinitely complex hierarchy, but not a tangled one. Progress along this hierarchy depends only on the level of development of the socio-cognitive system. This approach is actually employed in science: every research project begins with the formulation of a problem and an assessment of its

impact on society and humanity. All fundamental research ultimately finds practical application.

Unlike in science, in politics, when faced with wicked problems, a person turns to value-oriented ethics for "help." I put "help" in quotation marks because values-based ethics can actually complicate the situation. We need to discuss classical value-oriented ethics. I believe that it is impossible to establish universal human values on a factual basis. This is confirmed by "the open-question argument," which was put forth by G. E. Moore in §13 of *Principia Ethica*: the predicate "good" is irreducible to any merely factual predicate (Moore, 1903). Any attempt to reduce "good" to a merely factual predicate can be negatively questioned without contradiction. Take any absolutized factual value, and it will have a logically possible denial.

Let's consider this in the context of Ronald Reagan's famous speech on 8 March 1983. He said:

> A number of years ago, I heard a young father, a very prominent young man in the entertainment world, addressing a tremendous gathering in California. It was during the time of the cold war, and communism and our own way of life were very much on people's minds. And he was speaking to that subject. And suddenly, though, I heard him saying, "I love my little girls more than anything——" And I said to myself, "Oh, no, don't. You can't—don't say that." But I had underestimated him. He went on: "I would rather see my little girls die now, still believing in God, than have them grow up under communism and one day die no longer believing in God." There were thousands of young people in that audience. They came to their feet with shouts of joy. They had instantly recognized the profound truth in what he had said, with regard to the physical and the soul and what was truly important. (Reagan, 1983)

Here, a popular politician proclaims a system of absolutized factual values ("our own way of life") and the readiness to die for it. This system of absolutized factual values allow constructs a hierarchy of other values based on the principles of "good and evil." The absolutized factual values of one part of humanity becomes their absolutized factual good, while the absolutized factual values of another part of humanity become their absolutized factual evil. Readiness to die for absolutized factual values implies readiness to kill for absolutized factual values. This leads to war. Absolutized factual values are a kind of autoimmune response of the socio-cognitive system of global humanity. When the immune system begins to fight the tissues of its own body, causing inflammation, the same thing happens with humanity. All peoples, nations, religions, cultures, and civilizations have their own weaknesses and strengths. They are all necessary and useful in their own way.

Additionally, I do not deny the need for absolutized factual values in principle. But in fact, the absolutization of factual values leads humanity to war. This conflict threatens to destroy the system as a whole. We see here a classic wicked problem.

However, if we have established the absolute problem of all problems—death—then we can build a simple hierarchy of problems that must be solved to prevent the destruction of humanity, for example by means of world war. A problem-oriented approach to death quickly reveals the cause of war: the absolutization of factual values. To prevent another world war, it is only necessary to avoid the absolutization of anyone's factual values.

Fortunately, humanity is capable of an activity in which a problem-oriented approach is used: this is science. Scientific research, oriented towards solving a particular problem, does not require readiness to die or a desire to kill. The desire to overcome a problem does not require adherence to absolutized factual values. Poincaré's hypothesis was proved by Grigori Perelman, based on the works of Richard Hamilton. Both of these scientists lived and worked for opposing superpowers during the height of the Cold War, which threatened the destruction of all humanity. However, the scientists were not fighting for values; they were solving a problem. Poincaré's hypothesis was one of the Millennium Prize Problems or, to put it another way, one of the "absolute problems" of mathematics. This highly complex mathematical problem was overcome through united effort. How did absolutized factual values help in solving this problem? They didn't. Who cares about absolutized factual values when overcoming a problem? No one, and that is a good thing. It is good because solving any problem prevents some kind of damage to humanity. The establishment of an absolute problem opens up to us a universal method of development: problem-oriented ethics, which does not require war.

In the *The Design Way*, Nelson and Stoltermann note that wicked problems can be overcome through transformative changes to the system:

> According to Toynbee's findings, based on his research into the behavior of past civilizations, social systems historically evoke four types of responses when confronted by change. The only cultures that successfully move through major challenges, or crises, are those that engage in change in a manner that is consistent with design wisdom and leads to transformational change. (Nelson and Stoltermann, 2012)

This is a valid point. Toynbee describes what I refer to as "qualitative transitions" of a system. A system that is capable of overcoming a wicked problem, or in other words, is able to avoid its demise, must undergo a qualitative transformation in order to continue its existence. Overcoming a problem is a transition to a new quality. This can also be applied to humanity as a social-cognitive system. Perhaps humans are capable of achieving this.

In this case, I suggest a qualitative revision of ethics. Value-oriented ethics can be replaced by problem-oriented ethics. I propose to abandon ethics that absoutize

factual values. The starting point for the development of humanity, I suggest, is to establish an understanding of the problem of death. All problems of humanity as a global socio-cognitive system can be reduced to this problem. Literally all elements of the system—civilizations, confessions, communities, states and peoples, groups, families and individuals, and humanity as a whole—are subject to this absolute problem. We can speak of a global problem-oriented ethics that requires humanity to develop in the direction of overcoming the absolute problem. This is an idea of the development of humanity that does not exclude different ways to achieve it. Instead of absolute values, different communities will have different ways to achieve the common overcoming. Such development will be diverse. I am not suggesting that absolutized factual values be prohibited. I suggest revising their role in overall development.

Here is the question I've been grappling with: "Is Humankind Worth Saving From Whatever Might Threaten It? If Not, Then Why Not? But If So, Then Why and How?" For me, "…Humankind…" is taken to be a global socio-cognitive system capable of understanding the absolute problem of death through a unique tool: the language of abstract symbols in the system of tenses. For me, "…Whatever Might Threaten It…" refers to the absolute problem of death as a natural phenomenon, then the recognition of death as an absolute problem allows for the establishment of a problem-oriented ethics that does not give rise to well-known ethical contradictions. Everything that overcomes human death is primitively good and right, while everything that leads to human death is primitively bad and evil. Such an approach allows for the correlation of the ethical categories of good and evil with a natural phenomenon—death –without falling prey to the open-question argument (Moore, 1903). In the case of problem-oriented ethics, the dichotomy of good and evil works seamlessly. For example, the discovery of atomic energy is a classic dichotomy of good and evil. If atomic energy destroys humanity (nuclear weapons, dirty bombs), then it is evil. If atomic energy allows humanity to overcome death (carbon-free energy, nuclear medicine, research accelerators), then it is good. For me, the answer to the question "Is Humankind Worth Saving From Whatever Might Threaten It?" is "yes, it is worth saving" because, according to problem-oriented ethics, overcoming death is primitively good. Humankind has a universal method for solving problems: problem-oriented ethics. "Then Why and How?": for me, through the global development of humanity based on problem-oriented ethics. The aim of global human development is to overcome the absolute problem of death. This simple yet profound idea is also captured in *Genesis* 3:22:

> Then the LORD God said, "Behold, the man has become like one of Us, knowing good and evil; and now, he might reach out with his hand, and take *fruit* also from the tree of life, and eat, and live forever." (Bible, 2022)

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