

Fitness must hold for evolutionary theory to stand.

Authors: Gong Zhen, Gong Zhen

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Abstract

Fitness serves as the metric for measuring organisms' capacity to adapt to nature. Enhancing fitness constitutes an innate propensity of both organisms and humans, represents the fundamental impetus of biological evolution, and forms the common theoretical underpinning for individual selection theory, group selection theory, kin selection theory, gene selection theory, multilevel selection theory, among others. Current fitness theory reduces the nature of organisms and humans to the maximization of shared gene propagation, which seriously conflicts with the actual behaviors of organisms and humans as well as the empirical facts of biological evolution, thereby engendering the still-unresolved "Darwinian puzzle." Only by breaking the shackles of current fitness theory and superseding it with a novel fitness theory can the behaviors of organisms and humans and the facts of biological evolution be comprehensively explained, and can the theory of biological evolution be established upon a solid theoretical foundation.

Full Text

Preamble

Without Breaking Fitness Theory, Evolutionary Theory Cannot Stand

(School of Business Administration, South China University of Technology, Guangzhou 510641, China)

Abstract

Fitness serves as the measure of biological adaptation to nature. Enhancing fitness is an innate trait of both organisms and humans, constituting the fundamental driving force of biological evolution and forming the common theoretical foundation for individual selection theory, group selection theory, kin selection

theory, gene selection theory, multilevel selection theory, and others. Current fitness theories attribute the nature of organisms and humans to maximizing the spread of common genes, which seriously contradicts biological and human behaviors as well as evolutionary facts, leading to the unsolved “Darwinian paradox.” Only by breaking the shackles of current fitness theories and replacing them with new ones can biological and human behaviors and evolutionary facts be satisfactorily explained, thereby establishing biological evolution theory on a solid theoretical foundation.

Keywords: Biology, Biological Evolution, Fitness, Theory of Needs Movement

The fundamental principle of natural selection is “survival of the fittest.” The biological community has long debated two central issues: First, who is “the fittest”? That is, what is the unit of natural selection? At what level of entity do organisms adapt to nature and undergo natural selection? Who does natural selection act upon? Which level of biological entity is preserved or eliminated as a result of natural selection? Second, what does “fit” mean? How do organisms adapt to nature? What is the nature of organisms? Is it self-interest, altruism, or both? Which is more adaptive to nature and thus selected?

Darwin’s original theory of natural selection held that “the fittest” referred to individual organisms; “fit” meant “self-interested”; and the “benefit” was “survival,” which meant maximizing “fitness.” Fitness refers to a composite measure of an organism’s survival capacity, ability to propagate its own genes, and offspring survival capacity under given natural conditions. Among these three indicators, the core is the ability to propagate one’s own genes, because the purpose of survival is gene propagation, and the purpose of offspring survival is also gene propagation. According to this theory, the sole purpose of biological existence is to maximize the propagation of common genes. However, this theory contradicts actual biological behaviors and evolutionary facts. The most typical examples are worker ants and bees in colonies, who diligently perform arduous tasks such as foraging, nest-building, transporting, storing, managing the nest, defending against enemies, and feeding the queen and larvae, even sacrificing themselves to protect the group. Yet they do not reproduce or propagate common genes, resulting in zero fitness. Why, then, are they preserved by natural selection? Darwin was perplexed, stating: “This difficulty, which I initially considered inexplicable and indeed fatal to my entire theory, refers to the neutral—that is, sterile—female insects in insect societies...” [1]. In his later years, Darwin also discussed human altruistic and self-sacrificial behaviors, believing they were clearly disadvantageous to individual humans. In *The Descent of Man*, he wrote: “Those who are ready to sacrifice their lives rather than betray their comrades, as many savages have done, often cannot leave offspring who inherit their noble nature” [2]. This fatal difficulty is the famous “Darwinian paradox” in biology, also known as the “altruism problem,” which sociobiology’s representative figure E. O. Wilson called “the central theoretical problem of sociobiology” [3].

To explain this fatal difficulty, Darwin was forced to shift from individual selec-

tion theory to group selection theory, arguing that these organisms' behaviors reduced their own fitness but increased group fitness. Darwin stated: "This difficulty, though seemingly insurmountable, will be diminished, or as I believe, will disappear, once it is understood that selection applies not only to individuals but also to entire families, and that the required results can thus be obtained" [4]. Subsequent scholars questioned group selection theory and proposed various alternatives—kin selection theory, gene selection theory, multilevel selection theory—all attempting to reconcile biological behaviors with fitness theory by changing the unit of natural selection. The ongoing debates among these selection theories demonstrate that changing the unit of natural selection is futile. The root problem lies in current fitness theory's fabrication of a non-existent nature for organisms and humans: maximizing the propagation of common genes. Any theory proposed within this framework leads to a dead end.

Without thoroughly dismantling current fitness theory and establishing a new one, the "Darwinian paradox" will forever remain unresolved.

1. Propagating Common Genes Is Not the Purpose of Organisms

According to current fitness theory, the sole purpose of biological existence is to serve as a vehicle for propagating common genes. "The organism itself is merely a temporary vehicle for genes. Natural selection is the process by which certain genes outcompete other genes at the same chromosomal locus to have representation in the next generation... Organisms are simply DNA's way of making more DNA" [5]. However, biological and human realities are not so.

1.1 Sexual Reproduction

(1) Biological and Human Realities Following the evolutionary progression from primitive to advanced and from lower to higher forms, organisms can be categorized as viruses/bacteria, colonial invertebrates, social insects, non-human mammals, and humans [6]. Ranked by reproductive rate and speed, viruses and bacteria are highest, while humans are lowest. The higher the evolutionary level, the more likely organisms are to reproduce sexually, and the lower their fertility. In other words, sexual reproduction is disadvantageous for gene propagation.

First, sexual reproduction is inefficient. The process of mutual searching, attraction, and union between sexes is slow, and may fail to result in reproduction. Even when union occurs, gestation is lengthy and offspring are few. Asexual reproduction through direct division bypasses all these processes, achieving maximum efficiency with minimal resource consumption.

Second, sexual reproduction is risky. The mating process makes animals most vulnerable to predation, resulting not only in loss of their own lives but also reduced reproductive opportunities.

Third, sexual reproduction entails severe gene loss. In sexual reproduction, each generation loses half of ancestral genes. Offspring possess only half of each parent's genes, and grandchildren contain merely one-quarter. After several generations, ancestral genes become negligible or vanish entirely. "Queen Elizabeth II is a direct descendant of William the Conqueror, yet it is highly likely that not a single gene from the old king remains in her... Socrates may have one or two living genes in the world today, or perhaps none at all" [7]. From the perspective of organisms' billion-year continuity, current kinship coefficients of 75%, 50%, or 25% are meaningless, as they become negligible after a few generations and vanish entirely after millennia.

If the purpose of biological existence were to maximize gene propagation, evolution would proceed toward more efficient and advantageous methods for achieving this goal, with asexual reproduction—or even viral fission—being optimal. Not only is it faster and more prolific, but it also ensures 100% genetic identity with the parent, maximizing the proportion of common genes. Why, then, did sexual reproduction emerge? Why did billions of species arise? Why does actual evolutionary progression contradict current fitness theory?

(2) Scholars' Views Current fitness theory cannot answer these questions. British biologist Richard Dawkins, author of *The Selfish Gene*, explicitly avoids the issue: "Sex, this behavior that makes simple replication anomalous, why did it emerge in the first place? What benefit does sex provide? This is an extremely difficult question for evolutionists to answer... I will frankly avoid this question" [8]. American biologist Edward O. Wilson also recognized this problem: "If an egg undergoes parthenogenesis, the offspring's genes are completely identical to the parent's. In sexual reproduction, only half the genes are identical; in other words, the organism's investment is half wasted. There is no real reason why gametes should not develop into individuals through parthenogenesis to replace sexual reproduction and prevent this waste of investment. So why did sex evolve?" [9]. He explained that inbreeding strengthens kinship among group members and favors altruism, but causes phenotypic decline, reduced individual fitness, and decreased group survival rates, leading to the conclusion that "sex is an antisocial force in evolution" [11]. Wilson himself considered this explanation untenable, acknowledging it as one of the challenging problems that population genetics has failed to solve [12].

(3) Analysis The sequence of organisms appearing through evolution—primitive genes, single cells, multicellular organisms, asexual organisms, sexual organisms, lower organisms, higher organisms—represents a continuous decline in gene propagation efficiency and capacity. Humans, at the pinnacle of evolution, have the longest maturation period and relatively lowest reproductive capacity. Sexual reproduction is an inevitable trend in evolution; how could it become an antisocial force? Are higher organisms more anti-evolutionary and antisocial? How can fundamental biological facts and principles become "extremely difficult questions," "most challenging problems," or "questions that

must be avoided” for fitness theory? According to current fitness theory, the process of biological evolution should be called “biological degeneration.”

The discrepancy between fitness theory and evolutionary facts does not mean evolution is “antisocial”; rather, the theory itself is “anti-factual.” If we assume that organisms’ nature is to maximize propagation of common genes, no evolutionary facts can be explained. If we instead assume that organisms’ nature is to maximize satisfaction of their own current and lifetime needs and interests in changing natural environments, everything aligns perfectly with evolutionary facts, and all “difficulties” and “challenges” vanish!

1.2 Intraspecific and Intragroup Competition

(1) Biological and Human Realities Current fitness theory holds that genes manipulate their host organisms to exhibit altruism in proportion to shared genes with other organisms: if kinship is one-quarter, one-quarter altruism occurs; if one-half, one-half altruism; if 100%, unconditional self-sacrifice to ensure the other’s survival. However, reality shows that the greater the proportion of “common genes” between organisms, the more intense their competition.

Based on organismal overproduction, Darwin proposed the theory of struggle for existence, which divides into intraspecific and interspecific competition. Intraspecific competition refers to competition among individuals of the same species for resources, further divided into intragroup and intergroup competition. Intragroup competition occurs among individuals within the same group of a species for the same resources, while intergroup competition occurs among different groups of the same species. From the perspective of “common gene” proportions: intragroup > intraspecific > interspecific.

If organisms determined altruism based on common gene proportions, intragroup altruism should exceed intraspecific, which should exceed interspecific. The opposite is true. The fundamental principle of struggle for existence is that intraspecific competition is more intense than interspecific, and intragroup competition is more intense than intergroup. Darwin stated: “In the process of forming each new variety or species, there is generally the most severe pressure on its closest relatives, with a tendency to eliminate them” [13]. The more similar organisms’ habits, spatial and resource requirements, and proximity, the more intense their competition. Intraspecific competition is a mechanism for regulating population density, an important foundation for natural selection, and the dominant force in biological evolution.

(2) Scholars’ Views Biologists have observed that intraspecific competition is more intense than interspecific, and intragroup competition more intense than intergroup. “Competition between members of different species is not as direct as between members of the same species... Our predictions have been confirmed” [14]. How to explain this? Dawkins finds it “baffling,” then explains: “Every an-

imal is an independent selfish machine; mutual aggression is easily understood... When identical genes exist in different individuals, they must be faithful to the individual they inhabit" [15]. He considers these genes "outlaw genes," "ultra-selfish genes," "super-selfish genes," or "failures of inherent rules." "Although natural selection of selfish genes favors cooperation among genes, we must acknowledge that some genes do not do this. Instead, they act at the expense of other genes in the genome. Some authors call them 'outlaw genes,' others 'ultra-selfish genes'... Examples of super-selfish genes continue to be discovered, and they are even more baffling" [16]. Are these "baffling" "outlaw genes" and "ultra-selfish genes" selected for or against by nature? Dawkins believes they are selected for: "Natural selection often favors offspring exhibiting such behavior... When we observe wild populations, we should not be surprised to see deception and selfishness among relatives. The proposition that 'offspring should deceive' means that genes promoting deception are at an advantage in the gene pool" [17]. "Genes manipulating sibling-killing behavior would spread in the gene pool because they have a 100% chance of existing in the individual exhibiting the behavior" [18].

(3) Analysis Scholars' views contain a series of contradictions and self-negations.

First, what is the nature of organisms? Dawkins holds that every animal is an independent selfish machine, that identical genes in different individuals must be faithful to their host, and that mutual aggression is easily understood. If this is true, how can kin selection theory and gene selection theory, which propose that individuals exhibit altruism proportional to shared genes and that genes manipulate their hosts to sacrifice themselves to save two brothers or eight cousins, remain valid? Is this not a serious contradiction?

Second, which genes have greater advantage in survival competition: "self-harming altruistic" genes or "other-harming selfish" genes? Current fitness theory consistently holds that "altruistic genes" that sacrifice themselves to save siblings have greater advantage in survival competition. Why does it suddenly shift to ultra-selfish genes, genes promoting deception, and genes manipulating sibling-killing having greater advantage?

Third, where do "outlaw genes" come from? All genes are products of billion-year natural selection, and all organismal traits and behaviors are controlled by genes. Regardless of how bizarre their traits and behaviors, if selected for, they are components of the organism and normal genes that necessarily control organismal traits and behaviors. There is no such thing as "outlaw genes." Can genes within the same organism be divided into "outlaw" and "non-outlaw" categories? Or can individuals within the same species and group be divided into those composed of "outlaw genes" and those composed of "normal genes"?

Fourth, can "inherent rules" fail? "Inherent rules" are laws that necessarily operate and cannot be changed. If they can casually "fail," they are not rules

at all. Have natural scientific laws ever “failed”? The notion of “inherent rule failure” seriously violates biological and natural scientific principles.

That intragroup competition exceeds intraspecific competition, which exceeds interspecific competition, is a fundamental principle of struggle for existence. Current “fitness” contradicts this and cannot explain it. We cannot say organisms are wrong; we must say the theory is wrong.

1.3 Same Genes, Different Altruism

(1) Biological and Human Realities According to the theory that “organisms exhibit altruism proportional to shared genes,” individuals with identical kinship coefficients should show identical altruism. However, biological and human realities contradict this.

In lion prides, adult males are driven away while females remain. In elephant herds, adult males are expelled while females stay. Many species exhibit such patterns. Both male and female offspring share a 50% kinship coefficient with parents. Why expel males and retain females?

Parents and children share the same kinship coefficient, yet children’s love for parents far exceeds parents’ love for children. Historical records show that ancient China, Japan, Korea, and many other nations practiced senicide. Sons and daughters share a 50% kinship coefficient with parents, yet worldwide phenomena of son preference, abandonment, and female infanticide are widespread. Most parents bequeath inheritance to sons rather than daughters. Grandfathers and maternal grandfathers share identical kinship coefficients with grandchildren, yet most grandfathers view grandsons as continuations of their “bloodline” and invest resources accordingly, while maternal grandfathers do not view maternal grandchildren similarly. Everyone shares a 50% kinship coefficient with their children and with full siblings, yet attitudes, behaviors, and resource investments toward children versus siblings clearly differ.

Throughout history, inter-tribal, inter-regional, and inter-national marriages have produced offspring with equal paternal and maternal gene proportions. Yet tribes, regions, and nations continue warring, with each individual fighting maternal groups as members of paternal groups. Many wars are genocidal, exterminating defeated males and capturing females as reproductive tools. Why would victors propagate their enemies’ genes? Why develop patrilineal clans while massacring matrilineal ones? Why does “altruistic behavior” differ under identical kinship coefficients?

(2) Scholars’ Explanations Scholars offer no targeted, concentrated explanations. I have synthesized relevant arguments scattered throughout *The Selfish Gene* into several categories:

First, expected reproductive capacity or lifespan. Individuals with weaker expected reproductive capacity or shorter lifespans should cede resources to those

with stronger capacity or longer lifespans. Dawkins asks: a mother possesses 100% of her own genes, while offspring have only 50%. Why invest most resources in offspring? Because offspring are younger with longer expected lifespans and stronger reproductive potential. “An animal should consider this variable in its ‘calculations’ to ‘decide’ whether to exhibit altruism” [19]. Genes in offspring that manipulate altruism toward parents would reduce gene propagation because parents are older or nearing death with diminished or lost reproductive capacity. Genes in parents that manipulate altruism toward offspring better facilitate gene propagation. Dawkins expresses this expected reproductive capacity as “the general ability to benefit one’s genes in the foreseeable future” [20]. This reasoning clearly fails. First, parental behavior of harming or even killing children to satisfy their own needs is widespread. Second, parents and children, as well as siblings, share 50% kinship coefficients. Adult siblings have stronger reproductive capacity than parents and than their own underage children. Why not invest resources in helping siblings propagate genes? Laws worldwide treat parent-child relationships as “direct lineal kinship” with priority inheritance rights, while siblings are “collateral kinship,” even identical twins. Why the differential treatment for individuals with identical kinship coefficients?

Second, “certainty” index. The certainty index refers to the confidence with which individuals can determine kinship. Dawkins argues that altruism between parents and children versus siblings depends on the ability to ascertain kinship coefficients. In many species, mothers know to whom they have passed genes by laying eggs or giving birth. Poor fathers are more easily deceived. Therefore, fathers are less willing than mothers to toil in raising offspring [21]. Siblings cannot determine kinship and thus exhibit little or no altruism. Uncles love nephews more than paternal uncles love nephews because they know the child is their sister’s son. Maternal grandmothers love grandchildren more than paternal grandmothers do because they know the child is their daughter’s [22]. Dawkins argues that identical twins do not sacrifice for each other because they cannot confirm the other is their identical twin. Genes can only recognize genes identical to themselves within the individual they inhabit, not whether another individual’s genes match theirs [23]. Dawkins repeatedly emphasizes in *The Selfish Gene* that animals can recognize kin through appearance, smell, etc., suggesting the existence of “recognition alleles” [24]. Yet here, to address inexplicable contradictions, he selectively ignores his consistent views. The biological and human reality is that even when clearly knowing who one’s parents and siblings are, love for one’s children still exceeds love for parents and siblings. Spouses share no blood relations, yet most people love their spouse more than their parents, and certainly more than siblings. Two-headed turtles compete for food, attempting to bite and even eat each other. Regardless of which head consumes food, it enters a common stomach to sustain a shared life. Why compete and even kill? Because the sensory and cognitive subjects within the two heads are independent, and the gustatory satisfaction from chewing food is independent—each competes for its own need satisfaction. This demonstrates

that even between two heads sharing one body and one life, self-interest and competition prevail. Iranian conjoined twin sisters, with independent bodies and limbs but connected heads sharing one cranial cavity, had significantly different interests and hobbies. To coexist, every action required negotiation. After 29 years of difficult coexistence, their conflicts became irreconcilable, and they resolved to undergo separation surgery. Doctors warned that the likely outcome was paralysis or death. Yet the sisters persistently requested the operation, preferring death to such an existence. A Singaporean medical team accepted the unprecedented challenge, and both sisters died within two hours post-surgery. This demonstrates that even individuals sharing the same cranial cavity are unwilling to sacrifice their own need satisfaction for the other.

Third, viability. Under identical kinship conditions, individuals with stronger viability should exhibit more altruism toward those with weaker viability. Dawkins argues that parents have strong viability and thus show more altruism toward offspring, while offspring have weak viability and thus show little or no altruism toward parents. Lion and elephant prides expel males upon maturity while retaining females. If reproductive capacity were the criterion, males are stronger—one male can mate with many females, propagating more genes. If viability is the criterion, females are stronger. If females were expelled, they would be easily accepted by other male lions. Expelled males must wander, constantly fighting other males with their lives at risk. Why do animals expel reproductively strong, survival-challenged males while retaining reproductively weak, survival-advantaged females? Why do son-preferring parents invest resources in raising sons while abandoning or even killing daughters? If limited by parenting capacity, why not abandon sons or decide randomly?

(3) Analysis The nature of organisms and humans is to maximize satisfaction of their own current and lifetime needs, not to maximize propagation of common genes. Any other individual who can enhance one's interests should be embraced, supported, and strengthened; any individual irrelevant or detrimental to one's interests should be distanced, weakened, or eliminated—regardless of common gene proportion or gene propagation. Animal groups expel male offspring and retain females because strong male offspring threaten the father's dominance, competing for mating and resource allocation rights. Human son preference exists because parents depend on sons for old-age support; some parents, due to religious beliefs, think they need sons to provide sacrifices after death. Victorious groups exterminate defeated males and capture females because males become sources of resistance while females provide services and bear children. Love for children and spouses exceeds love for parents because children and spouses share the same interest settlement unit, while parents do not. Helping patrilineal groups attack matrilineal groups occurs because individuals share the same interest settlement unit with patrilineal groups, not matrilineal ones.

1.4 Intra-body Survival Competition

(1) Biological Facts Biological research demonstrates that intense survival competition occurs not only among species, within species, and within groups, but also within the same organism and among copies of the same gene. Before competition among species, within species, and within groups occurs, competition first arises among copies of the same gene within the same organism.

Once a gene segment splits into two copies within an organism, intense survival competition exists between them. Organismal growth and development is a process of fierce competition among gene copies. First, during fertilization, intense competition occurs among sperm, with only one or a few surviving to fertilize while hundreds of millions die in failure. Second, zygote development is a process of gene replication. Cells continuously divide and differentiate into organ tissues with different functions. Gene copies engage in life-and-death competition to occupy advantageous positions in organs. Biologists call this “Darwinian natural selection within the organism.” In 1972, Nobel laureate G. M. Edelman proposed neural Darwinism, or neuronal group selection theory, drawing on Darwin’s natural selection theory, suggesting that brain cells multiply through division and differentiate into neurons and synapses with different functions. Brain function strength depends on whether neuronal synapses can respond to external stimuli with sensitive, high-precision reactions. Neuronal synapses form during fetal development and further develop during infancy and early childhood. However, brain space is limited, and not all brain cell copies can survive as neurons and synapses—only those responding most sensitively and precisely to the environment can occupy limited space and survive, while others die. “Conscious activity is nothing more than the result of ‘winner-takes-all’ pattern selection in massive neural activity” [25]. This demonstrates that brain development and evolution also follow the “survival of the fittest” principle. Neural Darwinism represents one of the most important advances in neuroscience since the 1980s. Biologists have also discovered autophagy, where dominant, advantageous cells within the body engulf weaker cells when nutritional supply is insufficient. This is survival competition at the cellular level—cellular Darwinism.

(2) Scholars’ Views Primitive genes, copies of the same gene within an organism, and asexually reproducing organisms all share 100% “common genes.” According to current fitness theory, they should unconditionally sacrifice themselves to save others. Yet this behavior does not occur; instead, life-and-death competition, dissolution, and cannibalism occur. How to explain? Current fitness theory cannot explain this and must resort again to the “certainty index.”

(3) Analysis If identical twins do not exhibit altruism because they cannot confirm each other’s identity, then genes within the same organism can clearly confirm their common origin—why does “Darwinian natural selection within the organism” still occur? The “certainty index” clearly cannot explain this. Facts demonstrate that once a gene segment splits into two copies, survival compe-

tition exists between them. From biological groups to individuals, cells, and genes, all levels are subject to “survival of the fittest.” The nature of biological subjects at each level is to maximize satisfaction of their own survival and other needs under specific environmental conditions, not to maximize propagation of common genes. This perfectly explains “Darwinian natural selection within the organism.”

1.5 Active and Passive Sterility

(1) Human Realities Humans exhibit large numbers of sterile individuals, divided into passive sterility (involuntary loss of fertility due to congenital or acquired factors) and active sterility (fertile individuals who voluntarily forego reproduction). Examples include ancient eunuchs, modern transgender individuals, celibate nuns and monks, homosexuals, childless DINK (Dual Income, No Kids) families, artists who remain childless to extend their artistic careers, politicians who remain childless for career success, and people using contraception or sterilization. The declining birth rates in economically developed countries and regions further demonstrate increasing numbers of people reducing or abandoning reproduction.

(2) Scholars’ Views According to current fitness theory, the sole purpose of biological and human existence is to maximize gene propagation. First, fertile individuals should maximize reproduction. Second, infertile individuals or those with weak gene propagation capacity should actively die, and parents or society should abandon them, allocating resources to genetically superior individuals. Dawkins states: “If some individuals carrying an albino gene die, allowing other individuals with the same gene to survive and increasing the gene’s copies in the gene pool, then the deceased albino gene should feel happy” [26]. If a female has several offspring, one being a weak runt, the mother’s gene has little chance of surviving in the runt, so the mother should abandon feeding it and concentrate investment on other offspring. “In fact, it might be profitable for the mother to simply discard it as food for other offspring or eat it herself as raw material for milk production” [27]. From the runt’s perspective, its genes would also issue instructions: “Hey, you’re much smaller than your siblings—don’t struggle to survive, just die!” The gene issuing this instruction would die with the runt, but its copies have a 50% chance of existing in each sibling, achieving success in the overall gene pool. For this runt, there is a point of no return in its life. Before reaching this point, it should strive to survive. After reaching it, it should stop struggling and die willingly and gracefully, even allowing itself to be eaten by siblings or parents, thereby benefiting its genes [28]. However, human reality shows that many fertile individuals voluntarily forego reproduction, and infertile individuals do not willingly die but pursue happy lives. These facts clearly contradict current fitness theory. How do scholars explain this?

Dawkins argues this represents humans rebelling against their genes. “Our brains have become sufficiently independent from our genes to rebel against

them. Every time we use a condom, we take a small step of rebellion. There is no reason to believe we cannot rebel more significantly” [29]. “Only we—humans—can rebel against the tyranny of selfish replicators” [30]. “Our genes may drive us to behave selfishly, but we need not submit for life” [31].

(3) Analysis First, can genes be rebelled against? Biological principles dictate that genes are products of billion-year evolution and the material basis determining organisms’ traits, needs, and behaviors. The only way to “rebel against genes” is to remove or alter their material basis. For example, different brain regions govern different thoughts and behaviors; surgically removing a brain region eliminates corresponding thoughts and behaviors. Surgical removal of reproductive organs or estrogen injection eliminates male sexual function. Hybridization, genetic modification, and gene editing can also change organisms’ genes, creating new species. However, new genes still determine new organisms’ traits, needs, and behaviors. As long as genes exist, they cannot be rebelled against and must fulfill their naturally selected functions. If humans could arbitrarily rebel against genes and nature, genetic research would be meaningless, and fitness theory would be unnecessary.

Second, who rebels against genes? Genes are the sole determinant of organisms’ traits, needs, and behaviors. If humans can rebel against genes, the rebelling subject must be some other substance or component within the human body besides genes. What substance or component? Clearly none exists—only genes remain. Genes rebelling against genes—what logic is this?

Third, is rebelling against genes a human privilege? Dawkins believes only humans can rebel against the tyranny of genes, as if this is a human privilege. What conditions grant humans this privilege? Dawkins adopts an evasive strategy on this question, explicitly stating he will not argue it but vaguely mentioning the academic “nature versus nurture” debate [32]. It seems humans have culturally transmitted upbringing that allows them to escape the influence of selfish genetic nature. Can human culturally transmitted upbringing exist independently of genes? Can it change genetic nature? Humans’ unique cultural upbringing merely indicates stronger capacities to understand and utilize nature and more means to satisfy their own needs. This is not rebelling against genes or changing genetic nature; rather, it represents enhanced gene function and more complete satisfaction of genetic needs.

Fourth, the sole nature of organisms and humans is to pursue satisfaction of their own current and lifetime needs. Fertile individuals voluntarily foregoing reproduction are not rebelling against genes but better satisfying their own current and lifetime needs under genetic control. Eunuchs and transgender individuals who actively castrate themselves do so to obtain employment and improve living conditions—both arising from selfish genetic nature. Condom use satisfies physiological needs while avoiding parenting burdens, all under genetic control. Does the phenomenon of losing fertility and actively dying to allocate resources to fertile relatives occur in biology or humanity? Many high-ranking Chinese

officials and even emperors lost fertility—did they actively seek death to allocate resources to fertile relatives? Did their purpose involve propagating genes or enjoying happiness from endless resources and supreme authority? If they lived more comfortably and happily than fertile individuals, does this constitute survival of the fittest or unfit? Why do economically developed countries with conditions to raise more children have lower birth rates?

1.6 The “Vehicle” Theory Is Illogical and Redundant

Fitness theory and various selection theories consider genes “replicators” or “replication factors”—entities that maintain structural integrity across generations—while individual organisms are merely protective shells, survival machines, or vehicles created by genes, called “vehicles,” “storage containers,” or “protective walls.” They insist on distinguishing genes as replication units from individual organisms as vehicle units. “A core idea of this book is that individual organisms lack the basis for the above discussion. The gene frequency of a single organism is 100%, and thus cannot serve as a ‘unit of natural selection’” [33]. “Organisms do not live for themselves. The primary function of organisms is not even to produce other organisms; they produce genes. Organisms themselves are merely temporary vehicles for genes... ‘A chicken is just a way for an egg to make another egg’... An organism is merely DNA’s way of making more DNA” [34].

(1) The “Vehicle” Logic Is Flawed What is a vehicle? A vehicle is something that carries other things. What is a storage container? A container is something that stores other items. For simplicity, we collectively term them vehicles.

First, the relationship between vehicle and cargo. Vehicle and cargo are two independent entities with two relationships: (a) Their material structures can exist independently when separated—one can exist without the other. For example, a bucket is water’s vehicle, and water is the bucket’s cargo. Water exists without the bucket; the bucket exists without water. Paper is writing’s vehicle; writing exists without paper; paper exists without writing. The same substance cannot be both vehicle and cargo. (b) Their properties can exist independently when separated—changing one does not change the other. Changing the bucket does not change the water; changing the water does not change the bucket. Changing the paper does not change the writing; changing the writing does not change the paper.

Second, the relationship between organism and gene. The organism-gene relationship differs from the vehicle-cargo relationship. (a) Their material structures cannot be separated. Without genes, the organism does not exist. Without the organism, genes do not exist. (b) Their properties cannot be separated. Gene changes mean changes in the organism’s traits, needs, and behaviors, creating a new organism, and vice versa. This demonstrates that organisms and genes are not in a vehicle-cargo relationship. What is their relationship? It is the relation-

ship between a substance and its constituent components. Genes are composed of molecules—if separated from molecules, do genes exist? Can we say genes are vehicles for molecules, and molecules' purpose is to return to molecular state within the protective shell of genes? Molecules are composed of atoms—if separated from atoms, do molecules exist? Can we say molecules are vehicles for atoms, and atoms' purpose is to return to atomic state within the protective shell of molecules? Stars and planets form from molecular clouds and cosmic dust—can we say stars and planets are vehicles for molecular clouds and cosmic dust, and their purpose is to return to molecular cloud and dust state within the protective shell of stars and planets?

(2) The “Vehicle” Concept Is Redundant As previously established, organisms and genes are not in a vehicle-cargo relationship. Now, let us assume for argument's sake that organisms can serve as vehicles or storage containers for genes. If organisms' nature is to maximize replication and propagation of common genes, this “vehicle” is completely unnecessary and counterproductive.

Primitive genes in the primordial ocean replicated directly through fission without “vehicles.” Through billion-year evolution, they became various organisms in water, land, and sky up to humans—various forms of “vehicles.” In reality, vehicle evolutionary level is inversely proportional to gene propagation efficiency, directly proportional to resource consumption, directly proportional to natural adaptation capacity, and directly proportional to self-need satisfaction level. Higher vehicle evolutionary level means lower gene propagation efficiency, greater resource consumption, stronger natural adaptation capacity, and higher self-need satisfaction. Take humans as an example. Assuming current global average lifespan is 70 years and couples produce 3 children in their lifetime, how many genes are contained and how many resources are consumed? Humans need high-rise buildings, clothing, food, fish and meat, cigarettes, alcohol, medical care, health products, entertainment, mobile phones, computers, cars, luxury goods, trains, airplanes, tourism, and education from kindergarten to PhD. If the sole purpose is gene propagation, most of these resources are unnecessary. Human average lifespan significantly exceeds most lower animals, and the purely “resource-wasting” period without reproduction far exceeds that of lower organisms. Moreover, humans occupy valuable land, squeezing other organisms' living space. The resources consumed by one person in a moderately developed country could support thousands of pigs or tens of thousands of mice. If raising lower organisms like fish, the numbers are even greater. If this human “vehicle” actively sacrificed itself, allocating living space and resources to lower animal “vehicles,” the world's surviving genes would increase millions-fold. Why don't humans do this? Further, lower organisms propagate genes less efficiently than bacteria and viruses. Canceling all “vehicles” and returning to primitive gene replication would be most efficient and resource-saving. Why don't lower organisms do this? The process of biological evolution is from primitive genes, macromolecules, single cells, multicellular organisms, asexual organisms, sexual organisms, lower organisms, higher organisms to humans—a process of vehicles

emerging from nothing, from simple to complex, from microscopic to enormous, and a process of declining gene replication efficiency and increasing resource consumption. Why would organisms evolve such redundant “vehicles”? Why evolve in a direction disadvantageous to gene propagation? Is this evolution or degeneration? If we measure biological success by common gene propagation quantity, bacteria and viruses are the most successful organisms, and humans the most unsuccessful. If “a chicken is just a way for an egg to make another egg,” then by extension: an egg is just a way for a cell to make another cell, a cell is just a way for a gene to make another gene, a gene is just a way for a molecule to make another molecule, a molecule is just a way for an atom to make another atom, an atom is just a way for a nucleus to make another nucleus, a nucleus is just a way for a neutron to make another neutron... If so, except for the smallest indivisible unit, all other matter, organisms, and humans are merely vehicles with no necessity for existence. Then why have they evolved since the Big Bang?

The process of biological evolution is one of continuously improving capacity to understand, utilize, and transform nature, and continuously improving need satisfaction levels. Genes are the substance that gestates organisms. The survival experiences organisms can feel and the happiness humans can experience are unfelt by genes in their form. If organisms exist merely as vehicles to return to gene form, as long as they can return to gene form with maximum efficiency and minimal resources, what difference does it make whether the “vehicle” is human, mouse, fish, pig, bug, caterpillar, bacterium, or virus? Is there any necessity for the human “vehicle” to exist? Is there any need to improve quality of life or happiness index? If given a choice, would humans prefer to exist as “vehicles” or as genes? Is the purpose of organismal existence to become genes, or is the purpose of genes to become organisms? Genes composing organisms is like individuals composing groups—the group’s purpose is not to return to individual status, and the individual’s purpose is not to return to gene status.

1.7 Gene Variation Is Detrimental to Common Gene Propagation

If organisms’ nature is to maximize propagation of common genes, they should reject gene variation—the less variation in offspring, the better, and the more genes shared with ancestors, the better. However, under continuously changing natural environments, offspring without gene variation will go extinct. Earth’s history has witnessed several mass extinctions, the most severe eliminating 96% of species [35]. Organisms’ adaptation to nature occurs through gene variation undergoing natural selection. Organisms cannot guarantee their genotype will adapt to natural environments across generations and thus cannot make maximizing shared genes with offspring their nature. If organisms’ nature is to improve offspring survival capacity, the focus is not on the proportion of shared genes with offspring but on how offspring survive in changing environments through gene mutation.

Today’s billions of species all evolved from copies of primitive genes in the orig-

inal ocean. Through billions of years of variation, primitive genes in biological gene pools are either completely gone or negligible. Do genes after massive variation still count as copies of primitive genes? Only two answers exist: no or yes. If we choose the first answer, then organisms' "selfish" purpose of "maximizing copies of themselves in the biological gene pool" is unnecessary because it cannot be achieved! Descendants of primitive genes are no longer "copies" after billions of years of variation, having become billions of bizarre species that do not love each other to expand gene propagation but kill each other to reduce it. If we choose the second answer, then organisms' "selfish" purpose of "maximizing copies of themselves in the biological gene pool" is unnecessary because it is inevitably achieved! It has no competitors! Regardless of how many generations genes propagate or how they vary, all genes in biological gene pools are its "copies" with no "non-copies"; all are "kin" with no "non-kin." Every species should exhibit altruism and even sacrifice itself for other species, based on which species reproduces fastest with least resource consumption and lowest cost. If raising mice or fish propagates genes faster, with fewer resources and lower cost than raising sons, people should abandon raising sons and raise mice or fish instead. Further, genes in humans should manipulate humans to actively go extinct and cede Earth to mice, fish, bacteria, viruses, and other organisms. Further still, humans should never have been naturally selected or evolved. Similarly, if mice and fish propagate genes slower than lower organisms, they should never have evolved... This conclusion seems absurd but is inevitable under current "fitness" theory.

2. Current Fitness Theory Confuses Satisfaction Factors with Need Satisfaction

If propagating genes is not organisms' nature, why do they reproduce? This requires distinguishing between satisfaction factors and need satisfaction.

2.1 Need Satisfaction Factors and Need Satisfaction

(1) Need Satisfaction Factors Need satisfaction factors, abbreviated as satisfaction factors, refer to material or spiritual factors organisms use to satisfy their own needs. Satisfaction factor indicators refer to the quantity and quality of satisfaction factors organisms obtain. Physiological need satisfaction factors are material and measured quantitatively. For example, carnivores need other animals' flesh in certain quantities and qualities for survival. "Quality" refers to taste and nutrition. Herbivores need various plants in certain quantities and qualities. Viruses and bacteria need nutrients from other plants and animals in certain quantities and qualities. Plants need sunlight, air, water, and nutrients in certain quantities and qualities. Psychological need satisfaction factors are spiritual, measured non-quantitatively but convertible to quantitative indicators. For example, at the identity level, satisfaction factors are attitudes expressed by others through voice and behavior. For group leaders and high-ranking individuals, respectful and submissive attitudes from group members

constitute satisfaction factors. “Quantity” refers to frequency and duration of respectful attitudes. “Quality” refers to whether attitudes meet required degrees. The Australian frilled lizard (*Chlamydosaurus kingii*) shows submission by pressing its body to the ground and waving its forelimbs in a specific manner when passing through a dominant male’s territory to avoid attack [36]. Male *Amphibolurus* lizards roll onto their backs when encountering dominant males until the dominant passes [36]. In large herbivorous lizards (*Sauromalus obesus*) in the southwestern United States, dominant males occupy large territories, while subordinate males and females occupy limited territories and basking sites. Only dominant males can enter female territories and mate; other males cannot [37]. At the emotional level, satisfaction factors are love and attachment expressed by others through voice and behavior. For example, parents feeding offspring and offspring’s affectionate behavior toward parents. Material factors can convert to spiritual factors. Luxury cars, villas, and designer goods can generate noble identity feelings, becoming identity-level satisfaction factors. Gifts from friends can generate friendship feelings, becoming emotional-level satisfaction factors. Since satisfaction factors are merely conditions or means for organisms to satisfy needs, they are also called objective or means indicators. Means exist for ends; satisfaction factors exist for needs.

(2) Need Satisfaction Need satisfaction refers to the comfortable feeling organisms experience after using need satisfaction factors. Need satisfaction indicators refer to the intensity of comfortable feeling states organisms obtain after using satisfaction factors, also called comfort or happiness levels. For example, at the survival level, the intensity of vitality states achieved after consuming sunlight, water, air, and food; at the sensory level, the intensity of pleasant feeling states after consuming these factors; at the cognitive level, pleasant feeling states after recognizing connections between environmental factors and one’s needs; at the identity level, pleasant feeling states after recognizing one’s status in a group; at the emotional level, pleasant feeling states when recognizing love and dependence from offspring, parents, and other members, etc. Comfort and pleasure intensity is subjective and non-quantitative but can be quantified using scales. For example, tigers’ satiety and pleasure after eating meat or sheep’s after eating grass can be converted to data points like 1, 2, 3, 4, 5 representing different intensities.

Need satisfaction factors are means—objective indicators. Need satisfaction is the end—subjective indicators. Ends determine means; means serve ends. The basis for defining organisms’ nature is ends, not means—subjective indicators, not objective ones. For example, birds build nests for survival and comfort—we cannot say birds’ nature is nest-building but that it is pursuing survival and comfort. Farmers grow crops for food—we cannot say farmers’ nature is crop-growing but that it is pursuing survival and comfort.

2.2 Reproduction Is a Means, Not an End

Offspring serve two functions: first, helping ancestors obtain satisfaction factors; second, directly becoming ancestors' need satisfaction factors.

(1) Offspring Help Ancestors Obtain Satisfaction Factors Organisms that cannot reproduce to establish groups can only adapt to and utilize nature in isolation, obtaining drastically fewer satisfaction factors and achieving much lower need satisfaction, even failing to survive. Reproducing to establish groups allows reliance on group strength to adapt to and utilize nature, greatly increasing obtained satisfaction factors and satisfaction levels. For example, queen ants and bees would quickly die if they could not rapidly reproduce to establish groups after maturation; after establishing groups, they enjoy various services from workers and survive happily for years. The purpose of queen ants and bees reproducing to establish groups is clearly their own survival and enjoyment. All other organisms follow the same principle. Whether parents and offspring unite or separate depends on which method better satisfies parents' needs—unite if beneficial, separate if not. Humans are the same. Raising children increases labor force and wealth creation; strengthens family power in resource competition; and provides old-age support. Offspring helping ancestors obtain satisfaction factors thus become satisfaction factors themselves.

(2) Offspring Directly Become Ancestors' Need Satisfaction Factors Successful offspring bring honor to the family, satisfying ancestors' identity needs. The joy of having children and grandchildren around satisfies ancestors' emotional needs. Religious believers think they need offspring sacrifices to live happily in the afterlife or heaven, making offspring spiritual need satisfaction factors.

Sociologists call parent-child relationships intergenerational “reciprocity” and “exchange.” Raising children is a cost expenditure or “loan”; children's support for elderly parents through economic, labor, or spiritual comfort is delayed “debt repayment.” The “raising-supporting” model is the main family relationship pattern. Children may also care for elderly parents to obtain inheritance. Parents' resources are proportional to the care “purchased” from children. Both parties engage in “cost-benefit” rational decision-making, forming an implicit social contract that becomes an important bond maintaining intergenerational family relationships. The premise of biological reproduction and gene propagation is that it benefits need satisfaction. If this premise fails, reproduction and gene propagation behaviors will not occur.

Reproduction is a means, not an end. Obtaining satisfaction factors does not equal achieving need satisfaction. Offspring may respect and support parents, or they may harm them. Only when offspring respect and support parents do they become satisfaction factors. Parents' purpose is not reproducing to propagate genes but obtaining need satisfaction through offspring's respect and support.

If the same or better satisfaction can be achieved through non-reproductive means, offspring are not necessary satisfaction factors.

(3) Current Fitness Confuses Means and Ends If we treat “fitness” as dependent variable Y , and survival capacity, gene propagation capacity, and offspring survival capacity as independent variables X_1 , X_2 , X_3 , then: $Y = X_1 + X_2 + X_3$. Among the three indicators, survival is the need and end—belonging to the “fitness” category and dependent variable; gene propagation and offspring survival are satisfaction factors and means—belonging to independent variables. The correct relationship between X_1 , X_2 , X_3 should be: $X_1 = X_2 + X_3$, that is, ancestors’ survival capacity = gene propagation capacity + offspring survival capacity. Offspring are merely satisfaction factors for ancestors’ survival and other needs. Treating the three indicators as parallel independent variables confuses means and ends, independent and dependent variables, making it impossible to comprehensively derive a “fitness” value, and any derived value would be erroneous. For example, survival is need satisfaction—a dependent variable; sunlight, water, air, food, nests, etc., are satisfaction factors—independent variables. Mixing survival with sunlight, water, air, food, nests, etc., as independent variables confuses dependent and independent variables, making correct conclusions impossible.

3. Reducing Gene Propagation Does Not Equal Reducing “Adaptation to Nature” Ability

“Fitness” as the term suggests means organisms’ “degree of adaptation to nature.” Current fitness uses gene propagation capacity as the basis for measuring adaptation. According to this theory, increasing gene propagation and offspring survival rates equals increasing adaptation ability—self-benefit; conversely, decreasing them equals reducing adaptation ability—self-harm. This definition is erroneous. This can be illustrated through reproductive rates across different species and within the same species under different conditions.

3.1 Reproductive Rates Across Species and “Adaptation to Nature”

Viruses are the simplest lower organisms, surviving only hours or days, yet their fission replication propagation speed exceeds all other organisms. COVID-19 spread worldwide in a short time. Fish lay millions or even tens of millions of eggs at once. Mice can reproduce months after birth, averaging 6 offspring per litter and two litters per year. Gorillas, as higher organisms, produce one offspring per pregnancy with a 7-month gestation. Humans at the pinnacle of evolution cannot reproduce until their teens, average one offspring per pregnancy with a 10-month gestation, and cannot achieve one pregnancy per year. If more gene propagation and offspring survival means stronger “adaptation to nature,” then lower organisms, especially bacteria and viruses, should be naturally selected, and higher organisms, especially humans, should be eliminated. Treating the most primitive organisms at evolution’s end as most adapted and

higher organisms at evolution's front and pinnacle as least adapted—is this not absurd?

3.2 Reproductive Rates Within Species Under Different Conditions and “Adaptation to Nature”

Reproductive rates within species change with internal and external conditions based solely on whether it benefits their own need satisfaction. For example, in years with good harvests and abundant grain, field mice produce more offspring and reproduce faster; conversely, they produce fewer and slower. For humans, under conditions of backward productivity and scarce materials, larger families mean more labor, more wealth creation, more satisfaction factors for parents, and higher need satisfaction, favoring more children. Under developed productivity and abundant materials, parents can independently obtain needed satisfaction factors and satisfy their needs, reducing dependence on children and favoring fewer children—this is the basic reason for declining birth rates in developed countries. Conversely, if offspring harm parents' need satisfaction, they are abandoned or even killed, such as selling children in famine years, cannibalism, or killing disobedient or abusive children.

For organisms and humans, offspring are merely satisfaction factors. Whether to reproduce, how many, with whom, and how to raise them are choices made under certain environmental conditions to satisfy one's own needs—all are strategies for adapting to nature. Using reproductive quantity to define adaptation ability is completely erroneous. Offspring are merely tools individuals manufacture to satisfy needs. Whether to manufacture them, how many to manufacture, and what functions they have change with environment and needs—they cannot be used to define adaptation ability.

4. The “Survival” Indicator Is Incomplete

The Theory of Needs Movement states (see Gong Zhen's *Research on Psychological Needs and Their Movement Laws*) that humans possess six levels of subjects: survival, perception, cognition, identity, emotion, and value, generating six levels of needs; higher vertebrates possess the five levels excluding value. Except for the survival subject, the other five subjects are brain tissues located in different brain regions. Each level of subject pursues satisfaction of its own needs and has its own fitness. That is: organismal fitness = survival subject fitness + sensory subject fitness + cognitive subject fitness + identity subject fitness + emotional subject fitness + value subject fitness. Among current fitness's three indicators, gene propagation and offspring survival rates are satisfaction factors—factors that increase fitness, not fitness itself. Only “survival” belongs to the “fitness” category. That is: organismal fitness = survival subject fitness. Treating “survival” as organisms' and humans' sole need completely ignores higher-level subjects and needs—truly incomplete.

5. Replacing Current Fitness with New Fitness

Current fitness theory imposes on organisms and humans a non-existent nature—maximizing propagation of common genes—seeing only phenomena, not essence; only means, not ends; only satisfaction factors, not need satisfaction. Any theory proposed within this framework leads nowhere and inevitably falls into irresolvable contradictions. Only by thoroughly breaking this ideological confinement and replacing it with new fitness can the century-old “altruism problem” be completely solved. The new fitness I propose defines fitness as: the ability of a specific-level subject within an organism to recognize, utilize, and transform the environment to maximize satisfaction of its own current and lifetime needs. New fitness differs from current fitness in three significant aspects.

5.1 Difference in Nature

(1) Organisms’ Nature Is to Maximize Their Own Need Satisfaction

New fitness explicitly states that organisms’ nature is to maximize satisfaction of their own current and lifetime needs. This can perfectly explain all behaviors and motivations of all organisms and satisfactorily answer all questions that current fitness and various selection theories cannot. For example, why did organisms evolve from inefficient gene-propagating asexual reproduction to even less efficient sexual reproduction? To better satisfy their own needs. Sexually reproducing organisms have stronger capacities to understand, utilize, and transform nature and stronger need satisfaction capacity than asexually reproducing organisms. Why did primitive genes evolve into billions of species through variation, transforming from “copies” to “non-copies”? To choose the most stable existence form under given environmental conditions to improve need satisfaction capacity. Why is intraspecific competition more intense than interspecific, and intragroup more intense than intergroup? To compete for scarce, highly similar resources to satisfy their own needs. Why do organisms and humans show different attitudes and behaviors toward individuals with identical kinship? Why does widespread son preference exist? Because individuals with identical kinship provide different need satisfaction. Why does “Darwinian natural selection within the organism” exist? Because every gene and cell must occupy a position in the organism to satisfy its own survival needs. Why does active human sterility exist? To reduce parenting burdens and allocate limited resources to satisfying one’s own needs. Why do developed countries have declining birth rates? Because abundant material supply allows need satisfaction without children. Why is the “vehicle theory” wrong? Because organisms’ and humans’ nature is pursuing satisfaction of their own current and lifetime needs, not becoming vehicles for gene propagation. Why is altruism widespread? Because organisms and humans must cooperate mutually to satisfy their own needs. Between maximizing gene propagation and maximizing satisfaction of their own multi-level needs, which will organisms and humans choose? Obviously the latter!

(2) Organisms Can Only Satisfy Needs During Their Lifespan Needs during the lifespan are current and lifetime needs; there are no needs after death. Although humans can make long-term plans to benefit future generations and expect their happiness, and although religious believers expect reincarnation and happy afterlives with ancestral sacrifices, these are all wishes, behaviors, and psychological satisfactions during life. There are no needs or satisfaction after death.

5.2 Difference in Measurement Basis for “Adaptation to Nature”

The fundamental principle of biological evolution is “survival of the fittest.” Current fitness uses common gene propagation capacity as the basis for measuring adaptation. According to this theory, bacteria and viruses become the most naturally adapted organisms, and higher organisms and humans the least adapted, violating evolutionary principles. New fitness uses the ability to understand, utilize, and transform the environment to maximize satisfaction of one’s own current and lifetime needs as the basis for measuring adaptation, making humans and higher organisms the most naturally adapted—consistent with evolutionary principles. If given a choice, would organisms prefer to be lower organisms that efficiently propagate genes or humans that relatively inefficiently propagate genes? Obviously the latter. According to Lamarck’s evolutionary theory, gene variation is non-random and directional. The “direction” is maximizing satisfaction of one’s own current and lifetime needs under given environmental conditions, not maximizing propagation of common genes.

5.3 Difference in Satisfaction Levels

Current fitness holds that organisms and humans have only one subject—the whole organism—generating one need: survival. New fitness holds that humans have six levels of subjects (survival, sensory, cognitive, identity, emotional, value) generating six levels of needs pursued for satisfaction; higher vertebrates have five levels (excluding value). Lower organisms like bacteria and viruses have only survival subjects and needs. Each level of subject generates its own fitness, none substitutable or confusable.

“Survival of the fittest” only reflects survival subjects’ needs while ignoring all higher-level subjects’ needs. Current fitness theory actually changes “survival of the fittest” to “reproduction of the fittest” or “gene propagation of the fittest,” changing the internal need satisfaction state “survival” to the external satisfaction factor “reproduction.” In Darwin’s era, without psychology or need hierarchy and movement theory, treating survival as organisms’ sole need was understandable. Under new theoretical conditions, “fitness” should advance with the times, changing “survival of the fittest” and “gene propagation of the fittest” to “satisfaction of the fittest” covering all organismal subject levels, and changing “fitness” to “satisfaction level.” Satisfaction equals fitness; dissatisfaction equals unfitness.

Current fitness theory imposes on organisms and humans a non-existent nature—maximizing propagation of common genes—causing all behaviors to become inexplicable problems, with contradictions and self-negation becoming the norm. New fitness reduces organisms’ nature to maximizing satisfaction of their own current and lifetime needs, clarifying relationships between phenomenon and essence, means and ends, satisfaction factors and need satisfaction, independent and dependent variables. The “Darwinian paradox” is solved, all conflicts vanish! Maximizing satisfaction of one’s own current and lifetime needs is the sole driving force of biological evolution. The billion-year process of biological evolution is one of organisms changing traits through use and disuse under different environmental conditions, improving natural adaptation capacity and need satisfaction level. No matter how environments change, how traits change, or how high evolution progresses, organisms’ and humans’ nature of maximizing their own need satisfaction remains eternal!

Current “fitness” can be summarized in one sentence: organisms and humans all “live to propagate genes.” New “fitness” can also be summarized in one sentence: all levels of subjects in organisms and humans all “live to satisfy their own needs.”

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