CHAPTER 45
FREEDOM AND PROGRAM

When we consider nature, we may view it as a self-actuating and self-organizing entity. But this concept is counterintuitive. We cannot imagine a result without cause. We may therefore attribute the creation of nature to an underlying entity. Because the imputed creative capacity of such an entity differs from and surpasses anything we can compare, we may consider it to be supernatural. Notwithstanding this distancing, our best imagination of it is as being similar to a human because humans come closest in our experiences to the originating entity's purported capabilities. That similarity raises additional issues because humans are an advanced product in the development of life and life is founded upon nonbiological structures and processes. To place an entity we imagine as an advanced version of us at the inception of all development as its originating entity defies logic unless this movement derives from an unbroken circle. However, the existence of such a circle without cause is not credible to us either. We would still look for its creative beginning. We could not accept that it has always been. Further, if we assert that an originating entity is the result of a linear development, this only ceaselessly repeats the issue of origination. We are unable to concede that something came from nothing. And yet, we must accept such a development to locate a beginning. To make sense of creation, we must assume an entity that precedes substantive existence. The only shape that we can imagine such an entity to have taken is similar to our mind because we consider both to be nonsubstantive. This concept also eases a personification of an originating entity.

Such a concept does not seem to create much clarity. Again, we encounter the problem that we presuppose an originating entity that exceeds the highest-developed product we can imagine. We additionally incur the difficulty of explaining our experiences that a mind does not seem to exist without a physical basis. Even if we suppose that our mind is unrelated to our physical state, we have to explain how it and a similar nonphysical originating phenomenon came to be. Moreover, we still would have to explain how the physical world should originate from a nonphysical phenomenon. We do not observe that a mind can create matter. Although our rational mind might therefore counsel us to reform our impression concerning the origin of nature, our resolve is weakened by the ostensible lack of a convincing alternative. Taking the posture that mind can exist without a cause and that it can create matter might appear only slightly more preposterous than to assume that matter can arise from a state where no matter existed. As long as

both theories have equally little support in our experience, we may favor the alternative that is more familiar to us and more emotionally satisfying. The notion of mind as the source of nature causes us to feel related to that source and engenders our empathic identification with it. This aspect combines with the childlike emotional attachment that we experience when we consider our sourcing in a creative entity and its provisions on our behalf. These causes for emotional identification may bind us into an anthropomorphic concept of nature's sourcing.

Once we have established such a personification, we may draw parallels to how humans would behave if they could evolve themselves or could produce a phenomenon like nature. If a source develops itself through nature, it would remain innately involved as nature unfolds. Even if we assume a separate source, we could imagine that a source might not be satisfied with an act of origination. It might desire subsequent interaction with nature. Moreover, nature might not have been designed to be self-sufficient. Its development might require monitoring, guidance, and correction. We might also imagine that the mechanism of nature might fail or meet its purpose and that it might, in either event, be abandoned, recycled, or destroyed and discarded, or its results might be used in the pursuit of another objective. In addition to utilitarian considerations, we may attribute emotional properties to the source. Such an emotionality may be inferred if nature constitutes an inherent part of the source's organism. Humanity's emotions would be a part of the emotions of the source together with emotions of other sentient beings. If the source is separate, its purported similarity to humans would seem to make it even more likely that its emotions are comparable to human emotions. That similarity would further lead us to believe that the creative source has a special emotional relationship with humans as descendants. We may assume that it would sense significant empathy toward humans and care about them as extensions. In either event, we might assume that humans are part of the source's need for collective survival and thriving or a closely related emotion.

It is likely that these presumptions will give rise to further presumptions regarding the creative source and the relationship between humanity and the source. If the source would possess universal power to structure and guide nature, such an entity would rule the phenomenon of death as well. We may believe that an entity with the power of creating substance and life would also have the power to grant or deny an existence after physical death. We may think that the self-interest or tribal motivations of a source would motivate it to not let us die. In spite of our pervasive experiences of death, we may imagine and try to justify mechanisms that include death but still allow us to survive. We

may apply similar strategies of reconciliation to other painful experiences that befall us to maintain our image of the source. We may imagine that these experiences are somehow necessary or helpful to advance us. We may wish to maintain a portrait of a caring creative entity because it gives us hope that ultimately happiness can be achieved in spite of our experiences of pain, fear, and death. Then again, as we discover our world, we increasingly realize that anthropological parallels are ill placed. If we follow the concept of a separate source, we do not find a person tending nature as a human would. We may conclude from this observation that the source is not attending to its creation, allows it to proceed on its own terms, or that it has ceased to exist. We may be able to reduce these dissatisfactory notions of abandonment if we surmise that the source is present in, constituted by, and operating through the components of its creation. While this might serve to explain our experiences of nature as an organism somewhat, the concept that the source behaves similar to a human seems hard to maintain. In particular, perceptions, rational deliberations, emotional incentives in positive or negative directions, and resulting responses that characterize human deportment are missing in large aspects of creation. Everything we observe seems to proceed in line with preordained dictates. Even humanity appears to be a function of such stringent processes although they occur in us at particularly high levels of complexity.

We become aware that nature is structured and conducts itself pursuant to evidently immutable principles. We learn that these principles are formed by a limited number of different elements that possess characteristic properties. Our tracing of nature into a decreasing number of types of components causes us to speculate that, at the end of this process, we will find even less complexity. We may expect a binary set or a singular element from which everything else springs. This reduction of fundamental components raises the likelihood that their existence and functions might be traceable to autonomous, spontaneous, initial events of creation without the involvement of a scheming mind. Yet, in spite of our burgeoning insight into the components of nature and their functions, a considerable amount of mystery remains. That a world of such a complexity could ascend from such an apparent simplicity may fill us with wonder. This impression may exercise a determinative and a potentially error-producing influence over our ideas concerning the source of nature. The brilliance by which fundamental elements and properties organize a progression of higher levels of accomplishment makes it seem as if an intelligence possessing comprehensive capabilities inserted a still unfolding plan into the creation of nature. We may feel compelled to conclude that the observable genius

of creation and its unfolding brilliance reveal an intelligent origin. But we also increasingly realize that if an intelligence created nature, the involvement of such an intelligence would have been limited to its inception. It would appear to have created an amount of basic elements and their properties whose interaction appears to have unfolded into our world without further guidance. We may then liken our world, its functions, and its past and future development to the implementation of a program. The notion of a program threatens to insert distracting concepts into our exploration regarding the origin of nature. Although there only appear to be a few types of basic components, they possess enormous flexibility in their arrangement and occasions to apply that flexibility because there is an abundant number of components. This gives them the potential to evolve into seemingly countless combinations with high complexity. The versatility of basic components might remind us of basic elements used in the programming of mechanisms by humans because these can constitute complex instructions as well. Such a comparison suggests that the elements would have to be externally organized. The contrast of the complexity and principled character of our world and the apparent simplicity of its building blocks may suggest to us that it could not have developed on its own as a matter of necessity or coincidence. It implies the existence of a programmer who was already highly organized and imposed some of that organization on arrangements of the components of nature. If we presume the existence of a programmer, we must assume the program's initial conceptualization in the programmer's mind and its following implementation in the arrangement of code. Here again, we have to explain how the programmer and the substance for the implementation of the program came to be before or at the beginning of nature. Even if we presume a spontaneous establishment of substance and diminish the task of a creative mind to arranging this autonomous substance, problems continue because we have to render the preexistence of a programmer plausible. Explaining the existence of our setting requires that we presume a world in which the programmer arose and conceptualized and implemented our world. We have to posit the existence of a world in which the programmer lives with connecting similarity to our world.

The apparently programmed character of our world may lead us to the idea that our world and our existence in it might be electronically simulated, that it and that we might be representations of objects and events of a higher reality. This would correspond to our idea that the world might be a mental creation and possesses preexisting substance, and solve the purported requisite of a programmer. We might be situated in an accelerated simulation of developments employed to

analyze and shape the developments of that programmer, a society, or a larger context. To make such efforts reliable, they would have to be in high fidelity to actual circumstances at stake. The rich and complex environment that discloses itself wherever we probe might lead us to conclude that we are positioned in a comprehensive simulation. Nevertheless, unless our environment is being constructed as we probe, it might require impossible computing power to remain completely realistic. A simulation might not be able to reach the full extent of attributes of the world from which it emanates because its features would have to be coextensive with that world or even exceed it. Short of creating a full-fledged parallel world, a simulation might be restricted to parts in which it develops the full detail of attributes, or it would have to remain somewhat superficial if it endeavored to imitate aspects of the entirety of a world. Simulations would then lose either in scope or detail, which would diminish their fidelity. This should empower us to obtain insight whether we are part of a simulation through a comprehensive effort that would pressure simulating computing facilities to a maximum. If we are in a simulation of extensive breadth, detail might decrease. If we are in a simulation of the entire depth of the simulated world but only a part of its existence, we might notice that breadth of our undertaking is missing. Arguably, we could be programmed not to notice such incongruities. Yet the simulation would obviously permit our mental and scientific development. If this development is not shut off, it seems to be only a matter of time until we would reveal that our world is simulated. Further, a replicated world would necessarily allow us to ascertain facts and principles of the original world. The array of simulated constituents as well as the capacity and the drive to develop with which we are endowed might enable us to break through to the higher reality. We might acquire attributes in a higher reality that we lack in our simulation. We might undertake this similar to a mind that is situated in an exterior world. By influencing entities or mechanisms in a higher reality through their interaction with this world, we might gain or be granted access to the originating reality. The truer the simulation is, the less it will be possible for them to uphold its difference from their reality. Even if we are part of a fantasy, a virtual game, partial fidelity and contact might facilitate access to a higher reality. The conditions for revealing a simulation and breaking through seem to be even better if the emulation is nonelectronic. Then again, we may only be a limited experiment in a more complex world of which we do not know. This would weaken the possibility that we might wholly understand or participate in the originating world. We might be a relatively simple utility or game that does not matter and can be discarded.

However, as we explore the foundations of our world, we seem to find that the program under which we exist and its application possess attributes that countermand the notion of external programming and thus the concept of simulation. Our inquiries into the origins of the program and its implementation suggest the conclusion that form and substance emanate from the same origin because they are indistinguishable. All acts of conceptualization and of implementation that are separate in a model featuring an external programmer seem to be contained in the fundamental elements we discover. The vicinity and the intrinsic qualities of matter by which its elements interact seem to constitute a self-contained program. Over time, the great number of elements and their interactions have resulted in conditions in which life could develop as a matter of playing through the possibilities of arrangement composed by the allocation of substance and its principles until its conditions occurred. There appears to be no more room for a programmer and for the absurdity of having to explain the programmer's existence. Yet, while we may be able to follow the arrangement of substance through its principles, the events of creation that this arrangement presupposes remain past our comprehension. Their occurrence is foreign to us because we cannot create substance and principles of nature but can only allocate them. Also, we have merely moved the issue of programming to an earlier point coinciding with the creation of substance. Thus, not much insight seems to have been won.

To explain the occurrence of substance and principles, we may interject the concept of spontaneous creation, the emergence of something from nothing. Still, to resolve the issue of origin in this manner, we must show that spontaneous creation is possible. Short of observing such an occurrence, we might reconstruct acts of creation by tracing the following developments back to a spontaneous beginning. Our observation that elements and properties appear to be the most basic phenomena in nature and that it is organized from these two aspects leads us to consider that they are close to or might even represent the point at which nature began. We may believe that substance is being organized by principles that exist separately. Such existence seems to be confirmed because we can distinguish principles that appear to be constant and universal. Their universal character may lead us to conclude that they exist independently from substance. However, we derive these principles from our observation of substance. The reflection of substance in logic permits us to calculate how our world functions through symbolic representations. In such an ordered world, any state or movement can be described as an algorithm of properties. But the separation of logic only evidences that we can establish perceptions of

physical circumstances and represent their impression on us by themselves and in their commonalities, distinctions, and causalities in abstract substitutes. It does not prove that such organizational attributes can exist without an attachment to substance. Abstractions in symbols and relationships of logic are derivatives of the physical circumstances from which they are gleaned and on the basis of which they are found to be correct. Constructs of logic from these beginnings that we have not already found reflected in reality receive believability from our assumption that the physical world does not behave differently at higher levels of deduction. The stability by which the physical world behaves may suggest that it is bound by principles of logic. Yet, if the physical world behaved differently, logic disputing this behavior would be considered in error and we would modify our logic. Even if logical deductions seem to be consistent with one another, the ultimate test of their veracity is whether they are reconcilable with perceptions of substantive objects or events. We may then regard the functions of nature as the action and interaction of substances in consequence of their substantive characteristics. These seem to be defined by standardized elements of matter. Properties appear to be absolutely attached to types of elements. The principles of nature appear to be constituted by these properties and their interactions. All principles by which nature comports itself seem to emanate from substance as formulaic descriptions of its behavior. Everything that exists or comes about seems to have a physical basis that causes it to be formed as an object or event.

But these impressions appear to be contradicted as we investigate substance into its constituents. The deeper we delve into the essence and characteristics of substance, the more we find it dominated by abstractions. In our quest to identify the fundamental elements of substance, we dismantle layer upon layer of impressions of substance. At each level, impressions of substance reveal themselves as incidents of a set of principles that appear to be based on another level of smaller constituent substantive elements. In our search for an ultimate substance by following this pattern, we seem to only find an interlocking cascade of principles without ever apprehending substance. All we can find is behavior that has us conclude that there must be a more basic substance causing it. We regularly presume that we will find such substance if we only look deeper, that we simply may not have the right instruments to locate it yet. However, in the reality of descending levels of discovery, we appear to use the concept of substance as a placeholder for principles we cannot yet understand. Our failure to find a substance that cannot be further dismantled into components of other apparent substances and principles of behavior may cause us to specu-

late about whether this substance exists and will eventually be found. We may wonder whether what we perceive to be a physical world will ultimately reveal itself as an illusion in which all objects are events. It may be entirely composed of organizing principles that do not possess what we would consider a substance as their generator. All that exists as a perceived substance may spring from and resolve into principles of logic. This idea seems to be supported by the fact that logic is conclusive in itself without a requirement for substance and that we do not find substance behaving in deviation from logical derivations. Our world and we may be an elaborate construct of development and interaction of logical principles. Our perception of reality based in substance may be a reversal of the actual circumstances. This proposition may strike us as preposterous. We may deem substance to be of a different quality than logic because it gives us immediate impressions of its reality through our senses. Then again, substance enters our mind exclusively by our perception of its behavior. If we want to describe its behavior, we have to resort to describing incidents of the principles by which it acts or reacts, of its properties. All we appear to be able to detect are incidents of principles. Hence, rather than demonstrating that substance causes principles, our inquiries appear to indicate that principles cause our idea of substance. If that were the case, our questions of a beginning and ultimate causation would be senseless because our world and everything in it would be based on timeless truths.

In spite of an acknowledgment that logic persists regardless of time and matter, we may continue to have difficulties acknowledging it as a sufficient reality in itself. Particularly, we may ask how logic as a source can be reconciled with the apparent beginnings of our world in a singular explosion event. The answer may be found in the nature of logic. It is composed of a progressing sequence from basic beginnings. Further, it contains a number of basic units as carriers of properties to develop all its permutations. The combination of these factors may be responsible for what we designate as the universe, or our universe may only represent a partial display, a logical subdivision of a larger entirety. Logic may inform only one universe, or possibly multiple or an unending number of universes because logical potential may sanction or compel multiple or unlimited incidents. Our universe may be a recurring cycle by which logic leads to what we perceive to be the initiation of everything. Substance, space, time, and the locality for their expansion may not be an initial condition but result from logical interaction of logical components that leads to a concentration and explosion-like expansion. These might arise from the instant coincidence of all logical permutations or from the interaction of logical subdivisions.

As we advance, such speculations should become provable by logical deduction and practical confirmation. Yet, in the end, the distinction between substance and principle, between objects and their behavior seems to be irrelevant even if it exists because our notions of substance and principle are inseparable. This is confirmed by our observations that the program of nature does not differentiate between computation and application of a result into reality. The program appears to evolve to higher complexity based on the capacity of its basic components to act and arrange one another. Because the interactions of components are strictly defined by their properties, their results are not coincidences. The development of the world is not accidental. Rather, it proceeds under a plan that is contained in the quality, quantity, and allocation of its components. We may not have adequate proof of the orderly nature of quantity and its allocation in the universe. But the traced emission of them to a central source makes them ultimately orderly phenomena. Even if the quantity or allocation of components were accidental, the principled nature of their quality would impose a plot of how components act and interact. Its convolution and our subjective experiences make acknowledging its existence difficult in spite of the urgings by scientific experiences and logic. We may want to reject a concept of order because it appears to make us controlled functionaries without a choice of our own. It appears to deprive us of our previously presumed freedom. We may insist that our mind or a part of it that we desire to be our essence is of a different nature. We may hold out the hope against all evidence that it is not a strict function of the components by which we observe nature to be organized. We may think that it can rise above. We may believe that our mind or a part of it is not of this world and possesses properties that are not subject to the constrictions we perceive. Such an attitude may be motivated by needs regarding control of our circumstances, self-determination, and self-respect, as well as needs that intrinsically depend on or can benefit from voluntary action for their fulfillment. It may also be motivated by our fear of death. To believe that we have a chance to survive after our physical death, we have to assume that our essence can continue in a nonsubstantive form. We take refuge in the idea that we can partake in a supernatural realm that is separate from nature. Beyond that, we may have faith that we can apply these supernatural powers of our mind to dominate the natural world and shape it to our liking.

This impression of freedom may be founded on the exceptional position we perceive humanity to hold in the scheme of nature. Up to the arrival of humanity, we cannot discern much efficiency and effectiveness in it. Much of nature appears to participate in a mostly inert

dispersion of relatively basic components. Many large forms of organization appear to consist of aggregations of basic elements and interaction of their immediate properties on a massive scale. Higher forms of organization seem to be relatively rare because they rely on life to produce such organization. Even the development of life may appear ineffective and inefficient. Nature has expended exorbitant extents of time and generations of individual organisms as well as variations of species to progress into higher life forms and to develop its use of habitat. Even at those levels, life appears to be constrained to a minute enclave of conditions that are required to sustain it. Despite its extraordinary qualitative departure, life in our system has been underperforming its potential of converting nature into higher forms of organization. With the development of humanity, nature appears to have realized a form that can drastically raise the efficiency and effectiveness of its mission. Our capability to reflect the allocations and principles of nature in our mind, to plan our activities under recognition and selection of appropriate choices, and to act upon them may significantly benefit the development of nature. We appear to supplement the laws of nature by laws of our choice. Through our reflective and our allocative capabilities, nature gains the potential of higher levels of qualitative development and allocation that permit deeper and wider transformation. As successful as nature has been and continues to be with its traditional modes of prosecuting its mission, humanity can supplement that program with a more deliberate method. This innovative mental guidance system may cause us to view ourselves as emancipated from traditional strictures of nature and, at least potentially, beyond its laws.

In particular, our claim appears to be grounded upon the power that understanding the workings of nature gives us to apply them or to position ourselves concerning them. Our experience is that we can think of different allocation choices and select among them. Many of our decisions may be part of a larger confluence of causes. With growing development, we may become increasingly capable of possessing a choice whether we permit these causes to go forward or alter constituents or the assembly of causes. Proceedings by our council of traits in which different viewpoints consider and weigh in on choices may suggest that we are in command of our thoughts, emotions, and actions. Our incapacity to trace our mental processes with our senses adds to our impressions of autonomy and freedom. In consequence, our designation as functionaries of preordained processes is not convincingly verified by our experiences. Our subjective impressions controvert the scientific evidence that all we are and do is constituted by the components of nature and that we do not possess supernatural capacities.

Even if we acknowledge that we arose from nature, we may believe that it has liberated us from its usual strictures to promote its development. We may believe that the choices it affords us constitute an accelerated and more focused version of the liberty that nature seems to contain in its selective development. Our function individually and as a species appears to be to focus the field of possibilities on worthy variants in nature's development. Although it promotes us because we serve that purpose, we are merely one of many possible variants in nature's manifest strategy to advance itself. Its experiments that include attempts to create advanced species that can assist in arranging more focused trials and a resulting more focused advancement suggest that these experiments and their outcome are not predetermined. They do not seem to be parts of a planned procedure because they seem to involve broad flexibility and many of them result in failure. Being a species in which nature becomes aware of itself, it appears to be up to us to select from paths within that flexibility and to direct nature.

But the apparent absence of foresight in nature does not warrant the conclusion that its development is unpredictable. The existence of trials does not contradict the fixed character of nature. It only bears witness to the extensive number of possible combinations that its fundamental settings allow. We could predict how nature proceeds if we had sufficient perceptive and rational processing power and accumulated sufficient experiences of nature's attributes and allocations for such processing. On our way to such certainty, we must mimic the exploratory methods of nature, although possibly with a greater focus derived from the knowledge we have already accumulated. Yet, while we might not be able to foresee the results of experiments, we cannot reasonably assert that their outcomes are undetermined. When we examine results, we can reflect them in immutable principles that existed before the experiment. Our efforts seem to expand the efficiency of nature's selections and may unlock new horizons in its effectiveness. But we only uncover and do not add to the array of possible solutions because we are part of nature and work within its parameters. There is no indication that we are exempted from or could step out of nature's causative compulsion. Our capacities, opportunities, motivations, and choices and therewith our failure and success in our pursuits individually and collectively all are preordained by the substances and principles of nature. Any awareness we achieve or ignorance we maintain regarding our programmed character, and any of our endeavors to advance, escape, change, or sabotage our program are also a part of the program. Our superior capacity to manage nature's development does not change that the capacity and its exercise are directed by nature.

Even if we must admit that whenever we scientifically probe into our capabilities we find this direction to be present and even if we comprehend the substances and principles at work generally, our existence still may not look to us like a program. It may continue to appear largely coincidental because we lack information about many of the prescribing causalities that affect us internally and externally. The multitude of causes affected by that inadequacy may make nature, life, and our existence as part of these phenomena seem chaotic, and we may therefore seek supernatural guidance and order. Even in the presence of acknowledged underlying order, most individuals remain embroiled in a lifelong struggle to conquer ignorance, inability, error, interference, and their consequences. Subjectively, our existence moves in mixed and changing patterns of predictable sequences and coincidences. We must arrange the fulfillment of our needs consistent with the underlying order and react to unforeseen circumstances. This requirement for improvisation may be unsettling. We may wish that we could foresee events and control our fate to better fulfill our needs. As we gather understanding of our circumstances, we attain more insight regarding the workings of nature and its developmental potential and we become better able to predict and use them. We augment our understanding of our options and what their results might be. This aids us to become more effective and efficient in devising paths that serve our needs. If we discover and reconcile our needs and wishes as well, we gain better insight into our choices among available options.

However, as a result of this clarification, we may become aware that our sense of freedom is an illusion. We may realize that our options are objectively limited by our internal and external circumstances. We may further realize that our choices among these options are preordained by the dispositions of our needs even if we are nominally free to make any available selection. We may wish that we could alter the program. We may increase our options and our aptitude of selection by exploring nature. This may suggest some freedom although we only trace nature's potential. But we choose options according to how well they fulfill our needs. We may also alter genetic or acquired traits or resist following them. Still, we are bound by the objective requirements for individual and for collective survival and thriving. Changing these requirements only sets us on a different path that then becomes compulsory until we change these factors again. Even if we could keep our options and choices open, we may weaken our success by a lack of commitment or by creating other disharmonies with nature's mission. Any direction or positioning in our pursuits that is at odds with nature is destined to hurt us and threatens to place us in existential danger.

The only safe manner to entertain deviant pursuits would seem to be to adjust nature to coincide with our objectives. That would appear to require more than we can currently undertake. But the development of this capacity might be a logical progression inherent in the evolution of the program. In us and similar species, nature might gain the capacity to reprogram itself. An expansion in our awareness of the program and gains in our technological competence might allow us to grow or expose this capacity. We might gain the knowledge and aptitude to transcend the mere allocation of what we find and to produce, modify, or eliminate basic components. We might attain the power to change the causalities that steer us, to change logic. Notwithstanding, one cannot imagine how we should become able to reach independence in our thoughts, emotions, and behavior even if we could attain the technical capacity to change the program. After all, we would develop the capacity, resolve, and direction of changes according to nature's program. Any capacities to modify the program would have to be a result of it as well. In formulating and undertaking changes to the program, we would be directed by the program. While we might have the subjective impression of increased and even complete freedom, we would remain objectively committed to a preordained path. Our programming would seem inescapable in any permutations we choose.

Nevertheless, by leading such a development of logic, we might secure the survival and thriving of humanity. As a part of nature, our activities have always had a function in defining the reality of nature even if we could not define its potential. However, until we attain the capacity to change its program, our impact would be tentative because we would only be one of nature's trials among a myriad of others. Until we take command of the fundamental features of nature, our failure might not be of lasting consequence. Even if we could fundamentally change nature, our changes might only apply to parts or might be reversible. Nature might continue to tolerate trials by different authors, possibly in different partitions, or diverse branches of logic might coexist and interact. Program changes might expand the possibilities for human or nature's development. But they might also deprive us or nature of options and might stultify or end our or nature's development without recourse. The capacity to reprogram nature may then connect with an awe-inspiring responsibility. It is unclear what we would do with such a power. As of now, we do not possess sufficient knowledge to make any competent decision. We may not even be able to point to fundamental conditions of nature that we can determine to be dissatisfactory because we may not have grasped the potential we have been given under these conditions. We might not want anything else.

To competently answer the question whether and in which way we would change nature's program, we would have to understand nature's original program and how it might otherwise progress with our modifications. Yet, even if we should never achieve such fundamental capabilities, we have to develop an understanding of our objectives in connection with our allocative involvement in the development of nature to preserve and advance our interests. Based on our observations, we understand that nature uses life, including us in an apparently or at least potentially leading function, to transform itself. By that transformation, nature appears to pursue a comprehensive strategy of survival and thriving. This strategy seems to substantially correspond but may also clash with human strategies of survival and thriving. We will have to explore human development in interrelation with nature's development further to gain better clarity about the issue of harmony. In addition, we will have to know whether nature and humanity have ultimate objectives beyond those we might currently perceive.

If nature's strategy and humanity's reconciled strategy continue to be in harmony, as they seem to be for the foreseeable future, our increasing identification with nature because of our development of and into it seems to align us with its fate. That may mean that the interests of nature and humanity will merge and become indistinguishable. But it might also mean that humanity might subordinate itself to nature if humanity recognizes that it is reaching boundaries in its development that nature can exceed. We might develop a need to assist nature that we hold superior to our need for individual and collective human survival and thriving, similar to how we may value collective human survival and thriving more than our individual survival and thriving. Even if an emotional identification with all of nature would remain difficult, our emotional identification with life would appear to have the same effect because of the seemingly unlimited expansionary mission of life as a transformational agent of nature. In the event of such an orientation, we might adjust the remainder of our needs and our allocations, or the program, to serve nature. That subordination might have grave, possibly avoidable consequences for humanity's survival and thriving. It might incentivize us to consent to our demise if our utility on behalf of nature should end or if better qualified leadership should be available. It may even incite us to produce such a substitute leadership. We may sacrifice ourselves, retreat to a decreased function, or retire from participation in nature's advancement. Short of diminishing ourselves in these ways, we may continue to maintain human survival and thriving as our highest priority and only extend similar priority to selected parts of nature that are necessary or helpful to assist human survival

and thriving. Either way, we may remain pleased with the program of nature or the allocations we are able to manage according to it. In that case, knowing that we could change allocations or the program if we grew discontented with it might suffice. It might satisfy our needs for the control of our circumstances, self-determination, and self-respect, as well as needs that inherently depend on or can benefit from voluntary action for their fulfillment. The attitude that we adjust the allocations or the program of nature to our liking might appear selfish and potentially incompatible with the interests of nature. It might contradict our directive of harmonizing our pursuits with nature and might not bring the desired effects because nature might prevail against our efforts. But since we are a product of nature, nature might also rely on us to supersede its current trajectory. Our designated function might be to prevail against its adversities. To the extent our development diverges from its predetermined or adjusted path, the purpose of nature may be to boost us and set us free in an additional stage of existence in which the rest of nature is left behind. Our task may be to reform or escape a system that has limitations or that threatens to take us down with it in its reversion or its dissipation. The development we can currently fathom may only be an opening stage to an existence beyond.

Because we cannot sufficiently foresee nature's development or how our needs and capacities will develop, we will have to review our stance toward nature as the program unfolds. Until we see clearer, we must cope on the basis of our present needs, perceptions, and rational understanding and our capacity to develop in all of these areas. Considering the uncertainties and potential challenges humanity faces, we might agonize about humanity's fate. Then again, with the support of our perceptive and rational capacities to take cognizance and understand causes and effects, the mechanisms of happiness we possess as the results of our needs appear to have been offering capable guidance in securing our individual and collective survival and thriving. Moreover, the past growth in our perceptive, rational, and emotional faculties, our awareness that this growth seems to be continuing, and the foreshadowing of where it might lead us give us reason to assume that we might possess the opportunity to secure the future of humanity as well. However, all indications we can currently grasp about that future point to the central importance of reconciling our needs. They appear to confirm that our immediate and our more distant fate will depend on the intensity, inclusiveness, and regularity with which we deliberate and ameliorate our happiness by applying the methods of individual, collective, and general reconciliation. These methods seem to represent three indispensable conditions to our survival and thriving.