

# MAKING PROGRESS WORK: A NEW LIFE FOR THE OLD IDEA

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**Abstract:** The pursuit of progress has been a distinct feature of civilization at least over the last three hundred years. Yet the appeal of progress is now in decline. Many attribute several major problems we face today to our relentless pursuit of progress, including the degradation of the environment and climate change, the growing gap between the rich and the poor, the increasing control of governments over the life of their citizens, social instability, economic decline, and much else. Widespread criticism has raised fundamental questions about progress that even relatively recently we would not dare to raise without risking our intellectual credibility. The intense questioning encourages, indeed necessitates, a revisiting of the theory and practice of our pursuit of progress.

This article represents an attempt at re-examining some critical issues that are related to progress. There are several questions to be addressed in the following pages: Is progress really necessary? What fundamental purpose does it serve? Can our civilization survive without progressing? Does progress have roots in nature or is it merely a human fancy? In answering these questions, this article will explain the important relationship between our idea and practice of progress, on one hand, and nature, on the other. It will show that progress is not a human fancy; it has deep roots in the evolution of nature and the universe.

Substantive criticisms should not only point to mistakes and flaws. They should also lead to alternatives. This article will conclude by outlining some fundamental principles to be used in reshaping our progressive practice. The main feature of this reformed practice, as argued in the pages that follow, should be the process of creation that plays a vital role in the survival and evolution of our universe. The failure to embrace and understand this process has generated major flaws that continue to plague our pursuit of progress. The article will explain that the reason for this failure is not an accident but a necessary result of anthropocentrism that has dominated and continues to dominate our civilization.

By using the process of creation as the main organizing principle of our theory and practice of progress will make possible to eliminate the main cause of our numerous problems with progress.

**Key words:** Progress, evolution, the process of creation, conservation, inclusion, exclusion, empowerment, anthropocentrism.

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## Introduction

The master narrative of progress permeates our civilization. Following its emergence back in the 18<sup>th</sup> century, this narrative has evolved from heroic tales celebrating human genius into a formulaic humdrum that recounts familiar themes in endless variations. We learn this narrative from textbooks, newspaper and magazine

articles, and numerous other sources. We hear its echoes in speeches by politicians, public figures, celebrities, and spiritual leaders. It comes to us from all directions and in many forms.

There are dissonant voices that criticize the pursuit of progress. They argue that progress is not only a source of benefits for humanity but also its woes. Critics charge that progress brought numerous sufferings: colonialism, genocides, destructive wars, social divisions and conflicts, the degradation of the environment and much more.<sup>1</sup> These criticisms, although not rare in the past, have taken center stage in recent decades. They are no longer voices of dissidents and non-conformists; they have become an integral part of the mainstream.

Our civilization appears to be losing its self-confidence and optimism about progress. The faith in progress that dominated previous centuries is definitely over. For many people--and their numbers are growing--faith in progress no longer animates their imagination. Numerous articles and books reflect this turn. When *The Atlantic* flashes the title "Is 'Progress' Good for Humanity?" on its cover, we know that this is no longer a deviant theme.<sup>2</sup> Similar titles abound in our mainstream media today. Ronald Aronson sees progress as debilitating chaos. He wonders how can we "orient ourselves as we stumble . . . amidst trends that go every which way."<sup>3</sup>

The dominant view of progress used to be that uncoordinated and individualistic efforts driving progress would ultimately benefit all of humanity.<sup>4</sup> The view that is gaining currency today is that progress serves egotistic interests of the United States and the West more generally. Daniel Callahan expresses the view of many that progress today is little more than a way of promoting "the animating and controlling idea of western civilization."<sup>5</sup>

The transformation of the idea of progress in recent decades certainly invites at least a re-examination of our commitment to progress. Should we continue to pursue progress or is it time to call it quits and develop an alternative strategy for the survival of humanity? But will such strategy work? Perhaps we stay with the idea of progress but reformulate our progressive strategy. All these are legitimate issues that deserve attention.

This article is an attempt at a re-examination of progress. It will raise several issues relevant to progress. First of all, we need to understand the source of progress, not just in the sense of its origin that can be traced to the Enlightenment, but as our mode of behavior. After all, the idea of progress did not appear out of nowhere. As everything related to humanity, progress should have its roots in the evolution that led to the emergence of the human race. Is progress, indeed, essential for our survival and if so, why? Another related issue is the extent of progress. Does human progress have limits or is it infinite? There are more specific concerns that are related to the way we pursue progress. Today, progress appears to be failing. Is this failure intrinsic to progress or is it a result of inadequacies of our approaches. If the latter is the case, we need to understand the reason or reasons why our approaches are inadequate. These are the main issues that this article will consider, but it will also not shy away from other issues that are relevant to problems with progress that we encounter today.

## **Critique of the Current Approaches to Progress**

There are currently two principal approaches to progress. Both have roots in the Enlightenment tradition. Despite their common origin, however, they significantly differ from each other, if not on “what” of progress, then certainly on “how.” The proponents of both approaches occupy diametrically different positions on the political spectrum. They also differ from each other in ideology and even temperament.

One approach emphasizes that progress is largely due to spontaneous interactions generating a gradual accumulation of beneficial changes. This approach eschews centralized guidance of progress as much as possible and tries to keep the role of government to a minimum. The role of government is merely to oversee and maintain the conditions of law and order that facilitate and foster advances, rather than to define directions and set goals for progress.

The proponents of this approach represent a diverse group that includes classical liberals and conservatives. Classical liberals emphasize the capacity of government to do “good,” particularly by ameliorating social and economic ills. The main preoccupation of conservatives is accumulated tradition, experience, and precedent. Although the two groups are hardly identical, there are no structural differences between them that preclude a possibility of compromise. Both groups, for example, defend constitutionalism and are strong supporters of traditional institutions.<sup>6</sup>

Another approach is far more interventionist. According to this approach, progress is largely a result of goal setting that defines the direction of change. Although the proponents of this group understand the role of mass action and mass politics in promoting a progressive agenda, they also recognize the role of elites (politicians, public figures, scientists, or technocrats more generally) who formulate and articulate an agenda for change. They also advocate an activist role that institutions of government and courts play in planning and implementing changes. The proponents of this approach constitute a group that is more homogenous in its political orientation and temperament than those who support a less activist approach. They are commonly known as progressives, or progressive liberals.

As the above shows, the two approaches to progress are very different. One shows preference for spontaneous and undirected interactions that give rise to progressive change—a sort of Adam Smith’s “invisible hand.” The other shows strong preference for global action that sets general goals that guide local spontaneous interactions. Yet, despite these differences, the two approaches have common features. Each has its own bias and disregards what the other approach has to offer. In other words, they exclude each other, thus ignoring what may be valid in each approach. Also, rational justification and empirical verification are two conditions that are important when one makes claims of objectivity. Neither side offers a rational justification or empirical verification in support of their approach. This omission makes them both vulnerable to challenges for being subjective and arbitrary.

The fact that both approaches are exclusionary is hardly surprising. After all, both have their roots in the Enlightenment tradition that has been subjected to intense criticisms for its exclusionary and Eurocentric bias. As creatures of the Enlightenment tradition, the two current approaches toward progress have inherited from their source the tendency toward exclusion and bias that ultimately has created the divide that separates them.

The exclusionary nature of the dominant approaches to progress raises a larger problem—the problem of the inadequacy of the very conception of progress that prevails in our civilization. Criticisms of progress are nothing new. There have been numerous voices that expressed their skepticism and even opposition to the prevalent conception of progress. These voices included the likes of Rousseau, Schopenhauer, Nietzsche, Tolstoy, Dostoevsky, Mill, and many others.<sup>7</sup> Many of these voices are still influential. Environmentalists today have rediscovered critiques of progress by John Stuart Mill and John Muir.<sup>8</sup>

Many contemporary critics point to the inadequacy of the Western idea of progress that, in their view, has historically led to racism, misogyny, and colonialism. They argue that there are no transnational and trans-cultural standards that can uphold the universality of Western pretensions. As Sanjay Seth, one of the critics, concludes, “there are no grounds to cleave to the idea of ‘progress’” promoted by the West.<sup>9</sup>

In the view of many detractors, the pursuit of progress has led to many tragic events and developments experienced in the past and adverse conditions that our civilization faces today. In part they argue that the devastation of the environment and climate change are consequences of the economic growth and the development of science and technology. The deterioration of the environment has reached alarming levels and, in the opinion of critics, poses a real threat to health and safety of millions of people; indeed, it puts into question the very survival of our civilization. Despite the unprecedented increase in wealth, our civilization has singularly failed to reduce the chasm between the rich and the poor; poverty and hunger remain as ubiquitous as they have ever been, if not more so. The quality of life of the world population is on decline.

All these problems create a great deal of instability in the world where fear, wars, and oppression continue to rule. Exclusion and inequality have pervasive presence globally, including the most prosperous countries. And the list goes on. The progress that we have made is a source of multiple problems and even dangers for humanity. We have to recognize that despite numerous benefits, the current pursuit of progress is an unmitigated failure since it does not reduce and even increases the potential for destruction of our civilization. Moreover, the growing problems we see in the world today lead to conclusion that the pursuit of progress is now making such destruction even more likely. A sobering thought from Gabriel Almond about science and technology--two prime movers of progress—resonates with many people today:

Thus, from having been the catalysts of benign progress, science and technology have become morally ambiguous. There is a pervasive attitude that something has to be done to keep them from going bad. This attitude may in general be unjustified, but it is certainly true that the amount of intended and unintended evil science and technology are capable of, unless controlled, has increased enormously.<sup>10</sup>

Many feel that problems associated with progress are not due to inadequacies in the way we pursue progress; but rather, they are integral to progress.<sup>11</sup> Skepticism about progress is currently not limited to intellectual circles; it is a phenomenon widespread among the general population. According to many polls and surveys, well over seventy

percent and more of the population throughout the globe, including the advanced countries of the West, believe that their respective countries and the world in general are on a wrong track.<sup>12</sup>

One important factor in the declining appeal of progress is the failure of maintaining the coherence of the idea of progress. The original conception associated progress with economic growth and advances in science and technology. As time passed, new criteria for evaluating progress gained currency, which led to the emergence of new conceptions that represented dramatic reinterpretations of the original view.

Today, there is no one single universal view as to what constitutes progress. The conception of progress has splintered into multiple and often incommensurable perspectives that value progress on the basis of very different and even conflicting criteria. These criteria include morality,<sup>13</sup> happiness, decline in violence, or the improvement of the quality of life in general.<sup>14</sup> There are approaches that advocate assessments of progress on the basis of gender relations, attitudes toward sexuality, and race equality.<sup>15</sup> The green movement has produced its own version of progress.<sup>16</sup> In her assessment of the current views on progress, Dr. Anat Itay writes:

Findings show that while the literature regards the Liberal, economically based theory of progress as sitting at the heart of the mainstream conception of progress, it is notable that, in fact, there emerged among the participants a different mainstream conception of progress: one that is optimistic in approach, yet both Social Liberal and Green in its theory.<sup>17</sup>

One may think that such diversity would be beneficial in creating a broader appeal of progress. The effect, however, has been just the opposite. The proponents of these alternative interpretations have failed to find a frame that would be able to integrate this diversity. The result is that we deal today with multiple progresses,<sup>18</sup> which weakens the appeal of the idea of progress and creates confusion, rivalry, and even conflict. Ronald Aronson observes:

Today we wonder how to orient ourselves as we stumble through the century's last few years amidst trends that go every which way. All seem to make sense by themselves, but taken together they are baffling to the point of chaos.<sup>19</sup>

In their recent piece, Martin Savransky and Craig Lundy sound a note of despondency and frustration when they write: "In the wake of its devastating social, political and ecological effects . . . the imperative of progress is now one we cannot live with but do not know how to live without."<sup>20</sup> Today we witness a veritable erosion of the idea of progress. Simon Kuper has aptly described this process as "privatization" of the idea of progress. In his summation: "Most people in 2012 no longer believed that societies progressed, but they still thought individuals like themselves could."<sup>21</sup> According to Kuper, a common perception is that "the new human mission, both global and personal, is avoiding disaster."<sup>22</sup>

There are other manifestations of the erosion of the idea of progress.<sup>23</sup> Gone is the belief in progress as objective inevitability. At best, progress today is more of an

aspiration or a compelling obligation,<sup>24</sup> and at worst, an “unhealthy addiction.”<sup>25</sup> Humans continue to make history but the results of their actions are many and contradictory.<sup>26</sup> In popular perception, progress has lost its coherence.<sup>27</sup> While recognizing that progressive action remains part of Western identity, Wilfred McClay observes:

The idea of progress in history—the liberating song of the Enlightenment, the grand choral ode of the 19th century, the marching music central to the rise and dominance of the modern West—has gradually become problematic to us. . . . Not only is it our faith in the inevitability of progress that we question, but the very idea that we would have any sure means of judging what progress is, if indeed it does occur.<sup>28</sup>

A complete inversion of the idea of progress has replaced the familiar concept. In this view, progress is a steady degradation, rather than advancement. Wilfred McClay noted this transformation over a decade ago when he wrote:

Yet it is plausible to argue that what we call "progress in history" has not brought moral progress along with material progress, and that what progress we have made in freeing humankind from the constraints of material necessity has also increased the possibilities for human transgressiveness and wanton cruelty and destructiveness on larger and larger scales, has estranged us further from nature, and perhaps also inhibited the development of resilient individuals who are also capable of sustaining love, empathy, and self-giving. In this starker view, what would appear to be steady progress has actually, in human terms, been steady degradation.<sup>29</sup>

Many voices find the Western idea of progress to be so uncritical, damaging, and oppressive that a real benefit will only come from completely abandoning it altogether. In an article entitled “Adorno, Foucault, and the End of Progress: Critical Theory in Post Colonial Times,” Amy Allen offers a stinging criticism of the idea of progress even in its revised versions. She finds all these versions to be “deeply problematic” and completely lacking a capacity to be self-critical, “in the sense of aiming at the self-clarification of the struggles and wishes of our postcolonial age.”<sup>30</sup> Quoting approvingly philosopher James Tully, Allen stresses “the language of progress and development is the language of oppression and domination for two-thirds of the world’s people”<sup>31</sup>—a view that is particularly popular in non-European and developing countries.<sup>32</sup>

Allen’s voice against progress is far from solitary. There are many scholars, public figures, and activists who express similar condemnations. Writing at the end of the 20<sup>th</sup> century Ronald Aronson lamented on the demise of the faith in progress:

How vastly different to try to take one's bearings at the end of the twentieth century than it must have been at its beginning! Gone is the mood of civilisational self-confidence verging on smugness, the happy sense of history having a direction, which characterised most of those who

spoke to and for our grandparents. Their faith in progress is over, we all seem to agree.<sup>33</sup>

Recent developments in the world have strengthened the disillusionment in and the rejection of progress as an idea and practice.<sup>34</sup> Matthew Slaboch has characteristically entitled his book on contemporary criticism of progress *A Road to Nowhere* in which he argues that political theorists should seriously entertain the possibility that long-term, continued progress may be more fiction than reality.<sup>35</sup> This is not to say that the idea of progress has been completely debunked. However, the opposition to progress is growing and dramatically reduces the appeal of the idea.

## **Progress and the Process of Creation**

### *Defining Progress*

The review of the two main approaches to progress, the negative consequences of our pursuit of progress, and the changing views of and attitudes to progress lead to one conclusion: The way our civilization pursues progress is failing.

Progress is not the work of some impersonal forces. It involves human action and, consequently, decisions. There are many human societies where progress is either negligible or even completely absent. For this reason, we have to conclude that progress is not automatic. Although the rise of the idea of progress may have roots in natural order, progress does not occur by itself. Since human actions and decisions play a role in progress, the failure of our pursuit of progress is, at least in some degree, due to our practice—the way we pursue progress.

Before we turn to the practice of our pursuit of progress, we need to establish what actually progress is. Movement and change are common denominators in all definitions of progress. Some definitions may qualify progress as forward or onward movement; others may even add a goal or destination, thus specifying even more the direction of progress. Still others describe progress as “movement to an improved or more developed state, or to a forward position” or “towards a refined, improved, or otherwise desired state.”<sup>36</sup> There are also definitions that may variously describe progress in terms of growth in complexity,<sup>37</sup> advancement in science, technology, and control over nature,<sup>38</sup> and even in terms of human control over our own demons.<sup>39</sup>

This diversity of definitions reflects the evolution of the idea of progress in the course of human history.<sup>40</sup> The idea of progress held by Ancient Greeks was one of movement or steady progression, much like the Newtonian idea of movement of celestial bodies. Ancient Greeks conceived this movement as monotonous and cyclical, much like the cycles of nature.<sup>41</sup>

The Judeo-Christian tradition gave rise to the idea of progress as identifiably unique movement that has a definite direction and no repetitions.<sup>42</sup> This movement starts with the Original Sin, or the alienation of humans from God. As this movement continues through human history, the source of human predicament—the alienation from God—becomes increasingly obvious. The teaching of Christ represents the turning point in human history. Christ reveals and spells out the source of human decrepitude; he also

points the direction toward the final reunification of humans with God. St. Augustine—one of the foremost Christian thinkers—completely rejected the cyclical view espoused by the Antiquity in favor of the idea of a unique movement.<sup>43</sup> Robert Nisbet has stressed the connection between religion and progress. Nisbet writes: "[If] there is one generalization that can be made confidently about the history of the idea of progress, it is that throughout its history the idea has been closely linked with, has depended upon, religion or upon intellectual constructs derived from religion."<sup>44</sup>

The idea of progress also gained popularity in Islamic culture. Medieval Islamic scholar Hamid El Ghazli praised "sincere accomplished work towards progress and development" as "an act of religious worship" that "is rewarded as such." El-Ghazli saw the end result in "a serious scrupulous and perfect work, true scientific progress and hence actual achievement of balanced and comprehensive development."<sup>45</sup>

Most researchers generally trace the modern conception of progress to a relatively recent time—the 18<sup>th</sup> century and the Enlightenment. Gabriel Almond and his co-authors explain, for example, "Though parts and aspects of the idea of progress had been adumbrated earlier, it only began to take on fully elaborated form as a set of interconnected ideas and expectations in the decades after the mid-eighteenth century."<sup>46</sup>

Enlightenment thinkers viewed progress in terms of rationalization and the advancement in human understanding of reality.<sup>47</sup> Kant, for example, identified progress as the rational development of the human race.<sup>48</sup> For the most part, the Enlightenment conception of progress emphasized continuity and steady advancement of civilization.

Following Romanticism with its emphasis on creation, discontinuity, ruptures became integral to the European conception of progress. The movement of progress was steady but it was also marked by leaps—a kind of "punctuated evolution" popularized by the Stephen Gould. Hegel revived the Judeo-Christian idea of alienation in his explanation of progress. For Hegel, progress starts with the original self-alienation of the Absolute and proceeds via negations and the struggle of opposites that generate conceptual leaps.<sup>49</sup> Marx largely accepted the idea of self-alienation; in his case, it was the alienation of humans from their species being. Marx explained progress to be a result of the struggle between opposite social classes—the exploited and exploiters. The final stage in this evolution was the transcendence of human self-alienation and the reunification of humans with their species being. The final resolution of the historical conflict also involved the elimination of class antagonism and exploitation, and the establishment of communism as social form that embodies the unification of humans with their true nature—species being.<sup>50</sup>

Closer to our time, Thomas Kuhn in his controversial but much-celebrated book *The Structure of Scientific Revolutions* has also attempted to explain progress in sciences in terms of creative discontinuities.<sup>51</sup> However, he has ultimately failed in his explanation. Kuhn viewed progress in terms of the improvement of the problem solving capacity—an approach that many found questionable. As one critic points out, paradigm changes toss out problems, as well as solve them.<sup>52</sup>

The Industrial Revolution with its transformative drive strengthened the connection between progress and discontinuity whereby the evolution of civilization was largely identified with radical innovations in all areas of life and transitions to fundamentally new forms of society and social practice. From the late 19<sup>th</sup> century to our time, creation—in the sense of the emergence of radical novelty that has not existed prior



to its emergence--became integral to the new conception of progress. Also, the new conception has ceased to be that of movement toward some goal; rather, progress was conceived as open-ended with constantly moving goals—an infinite vector pointing to the future. The belief that mankind has always been advancing and will inevitably continue to advance has become an item of faith in the modern world.<sup>53</sup>

### *Progress as Creation*

In contrast to the original conception of progress that emphasized continuity, the contemporary view of progress places the emphasis on discontinuity, or radical innovation. Radical novelties do not emerge out of nowhere. They represent new and more powerful levels organization. Such new levels of organization give rise to new ideas, new approaches, new products, and other novelties; new levels of organization are the source of radical innovation. Thus, the creation of new and more powerful levels of organization makes progress possible. The use of the word “creation” in this case is intentional and justified. We associate creation with the emergence of something that did not exist prior to its emergence. Since new and more powerful levels of organization do not exist prior to their emergence, their rise is definitely involves creation.

The central role of creation in the new conception of progress suggests that the process of creation should central to discussions of progress. The paradox is, however, that none of the current approaches to progress pays much attention to progress. They do not give much serious consideration to this process. As a result, they do not understand how it functions and obviously cannot control it. The lack of serious discussions of the process of creation among proponents of progress gives good reasons to believe that failures in our pursuit of progress may at least to some degree be due to the continued existence of this paradox.

It is worth mentioning that proponents of progress are not alone in failing to understand the process of creation. In fact, the failure to understand creation is characteristic for our civilization as a whole, and not just for the proponents of progress. The sad fact remains that our knowledge of the process of creation remains very rudimentary. Margaret Boden, one of the pre-eminent researchers in the field, draws the following conclusion in her very influential book on creativity:

Our ignorance of our own creativity is very great. We are not aware of all the structural constraints involved in particular domains, still less of the ways in which they can be creatively transformed. We use creative heuristics, but know very little about what they are or how they work. If we do have any sense of these matters, it is very likely tacit rather than explicit: many people can be surprised by a novel harmony, but relatively few can explicitly predict even a plagal cadence.<sup>54</sup>

Even Boden is not particularly optimistic about the prospects for rational understanding of creation. In her view, it “will be many years, if ever, before we can identify them [aspects and factors involved in creation] in scientific terms.”<sup>55</sup> Boden’s pessimism about the prospects for comprehending the process of creation

is a clear indication that our failure to understand this process is not an accident—a result of mere negligence. There must be some fundamental reasons for our failure.

The process of creation is ubiquitous throughout our universe. We can see results of this process in many wonderful creations we observe: from subatomic particles to atoms and molecules, to planets, stars, galaxies, life, and civilization. There must be some fundamental reason why the prevalent view in our civilization is that this process cannot be explained.

There are researchers, including myself, who think that we can understand creation. Their contributions have helped to understand much about this process, even if their efforts have so far not been entirely successful and a comprehensive theory is still in the making.<sup>56</sup> The process of creation has been the subject of several contributions of my own.<sup>57</sup> Although a full presentation of my views is beyond the scope of this article, a brief summary is certainly in order.

As has already been pointed out, the process of creation is universal, in the sense that it relates to the entire universe that is the source of this process. The characteristic feature of our universe is its uniqueness: it is all there is. Nothing can come into our universe from outside because there is no outside. Nothing can disappear from it because there is nowhere to disappear. Everything must be conserved. Conservation is the most fundamental feature of our universe.

Conservation requires resources; and resources are always limited no matter how frugal a system is or how efficient it is in using its resources. While frugality and efficiency certainly help and are rewarded by nature, they ultimately not solve the fundamental problem of the finitude of resources. The only way to solve this problem is by accessing new resources. Therefore, constant access to new resources makes conservation possible on a universal scale. Consequently, the evolution must favor systems that are capable of gaining access to new resources.

In order to gain access to new resources, a system must expand its range of possibilities (i.e., it must acquire new ways and capacities to act), which requires new properties. As has been explained elsewhere, new properties emerge as a result of equilibration of levels of organization within the system or between the system and external reality. Equilibration, the creation of new connections and combinations enriches the system and makes it more powerful. Thus conservation requires creation. Creation generates new and more powerful levels of organization that provide access to new resources. The result is the evolution of the system. In other words, in order to conserve itself, a system must evolve. Conservation is the engine of evolution. A system that does not evolve cannot conserve itself and begins to disintegrate.<sup>58</sup>

Inclusion/equilibration is the key to the evolution and survival of systems. A detailed discussion of this process has been the subject of several articles and need not be rehearsed here.<sup>59</sup> For the purposes of this study, it is quite sufficient simply to reiterate the main points that equilibration leads to the emergence of new and increasingly more powerful levels of organization (more powerful because they contain combinations that did not exist prior to equilibration). New levels of organization offer new possibilities, access to new resources, give rise to radically new constructs—i.e., radical novelties. The universal process of creation is essential for conservation and it leads to evolution and progress. For this process to have the desired effect, inclusion must be universal.

This article is not unique in pointing to the process of creation as the source of new ideas and progress. David Deutsch, for example, also expresses such recognition in his article “The Source of All Progress.” However, in his view, this process is largely random—a sort of guesswork.<sup>60</sup> By contrast, the view presented in these pages sees the process of creation as ordered. It is the inevitable consequence of conservation and follows the logic of combinatorial equilibration.<sup>61</sup>

The fact that progress involves the process of creation indicates that progress, as an idea and practice, has deep roots in nature. It reflects an important intuition that progress is not our whim. It is essential for our survival/conservation, both as individuals and civilization. The universal process of creation has no beginning and no end. It is eternal and sustains the existence of our eternal universe.

The human mind is a product of this process and embodies its fundamental features. Following the implicit logic of the process of creation, humans can create an infinite number of new and increasingly more powerful levels of organization. The conservation of each level requires the creation of another one that is more powerful than the one from which it has emerged. It is always possible, indeed necessary, to create the new level. Therefore, progress is not our whim or fortuitous idea. We need progress. There should be no limits to our progress. This infinite progress is essential for our survival.

## **Progress as a Practice of Creation**

### *The Many Woes of the Anthropocentric Progressive Practice*

This article is not the first work that emphasizes the connection between human progress and cosmic processes. Other researchers have also discussed this connection, although without much detailing. L. L. Bernard has also observed that the “chief conditions and limitations respecting social progress are the cosmic and physical, biological and psycho-social.”<sup>62</sup> Arthur Lovejoy and George Boas argue that the “general and necessary law of progress [is] a tendency inherent in nature or in man.”<sup>63</sup> Ronald Aronson, yet another contributor connects progress with conservation—a connection that many proponents of progress disregard. As Aronson has noted, “in the world of Progress the past is under persistent and ruthless attack.” In his view, true progress should not involve a rejection of either the past or the present. Such progress—Aronson calls it “democratic”—would involve “the waning of irrational rejections of the present” and at the same time “a respectful return to the past to calm and beautify the present.”<sup>64</sup>

As the preceding sections explain, failures of progress are definitely not a result of some causes that are intrinsic to progress; rather, these failures indicate that there is something fundamentally flawed in the way we pursue progress. Many researchers have also come to this conclusion. Rather than call for the abandonment of progress, they insist on the need for a new progressive practice. Jason Crawford, for example, writes about the imperative to find a new way forward in pursuing progress that would depart “from regressive proposals offered in the 20<sup>th</sup> century.”<sup>65</sup>

The universal process of creation is at the heart of human progress. The fact that we know so little about this process suggests that the reason for our failures in pursuing progress is our lack of understanding and control of the process of creation. The lack of knowledge of the process that is so fundamental to human progress certainly explains the flawed practice of our pursuit of progress.

The preceding discussion of the process of creation shows that it works on universal inclusion. The inclusion and combination of differences generates new and increasingly more powerful levels of organization. If we do not understand and control the process of creation, we cannot create new levels of organization without which conservation and the production of radical novelties is impossible. Failure to conserve inevitably leads to disruptions and disintegration: that which is not conserved begins to disintegrate.

One should stress that inclusion must be universal since selective inclusion is a form of exclusion. Selective inclusion cannot produce more powerful levels of organization. The exclusion of some possibilities means that the new level of organization will not be more powerful than the one from which it has emerged.

We often tend to view exclusion and inclusion on equal terms, as a kind of antipodes.<sup>66</sup> In fact, they are not. Exclusion cannot match the power and importance of inclusion. It has no role in the process of creation that sustains our universe and all in it. Contrary to the current theories, exclusion has no positive cause; it is merely a lack of inclusion. This fact may explain why the search for the source of exclusion has been so difficult and has produced no conclusive results.<sup>67</sup>

The only reason why we still practice exclusion is the fact that we do not understand the singular importance of inclusion. The role of inclusion has no equals, certainly not in exclusion. Inclusion is not a mere moral imperative, as we often tend to think about it; inclusion is essential for creation and for sustaining our life. Since we have not grasped the true and unique importance inclusion, we treat it as a mere exchange currency in subjective human realm, used alongside of its opposite--exclusion. If we understood the importance of inclusion, we would never shortchange it.

The reason why exclusion retains its status as an equal to inclusion cannot be an accident. Many times in the course of history, humans tried to eliminate exclusion. The elimination of exclusion was the goal of numerous social movements, revolutions, and even wars. And yet all of these attempts have failed. The persistence of exclusion in our civilization is a puzzle with roots reaching into a very distant past--to the very beginning of human civilization. The continued flourishing of exclusion indicates that we do not understand its cause and, consequently, fail to address it.

The connection between inclusion and the process of creation suggests that the persistence of exclusion must have something to do with our failure to grasp the importance and understand the central role of the process of creation in our life. Since we do not understand how the process of creation works, one can conclude with good reason that the presence of exclusion has something to do with the lack of such understanding.

As has already been pointed out, the process of creation plays a vital role in the evolution. Humans are a product of this evolution. The human brain represents the most powerful level of organization of reality.<sup>68</sup> It is the culmination of the evolution. The brain has inherited the capacity to create from the evolution that preceded its emergence.

It can create an infinite number of new and increasingly more powerful levels of organization.

The creative capacity of the human brain has made possible the emergence of increasingly more complex mental operations and mental constructs that play such critical role in our interactions with reality. Mental constructs are the principal tools that allow humans to perceive, interpret, and understand reality. This fact was just as true for early humans, as it is true for us today.

Mental constructs are human creations and, as such, are subjective. They are the only source of our knowledge about reality. Therefore, the knowledge we acquire by using these subjective tools is inevitably subjective. This knowledge is a result of subjective perceptions and interpretations. In other words, this knowledge is about how we see the world, not how this world actually is.

Just like we do today, early humans viewed reality through the prism of their mental constructs. These constructs defined their representations of reality. Early humans were totally unaware of the fact that their constructs are their creations. They believed that their perceptions were mere reflections of reality, not products of their own creation. The process of creation that was the source of their representations of reality was not central to their frame of vision.

Most students of anthropocentrism attribute its emergence either to religion or the inevitable subjugation of nature and the establishment of human domination over it. Lorraine Daston, for example, sees anthropocentrism as the cardinal sin that modern science inherited from religion.<sup>69</sup> Others see anthropocentrism as an effect of organized agriculture or industrial production.<sup>70</sup> Yet, as has been explained elsewhere,<sup>71</sup> the source of anthropocentrism is in the spontaneous projections of inner states on reality, as practices by humans since the rise of civilization. The practice rooted in anthropocentrism is exclusionary since it is based on subjective human constructs that are inevitably subjective. The failure to recognize the centrality of the process of creation and, thus, to overcome anthropocentrism, was and still is the source of exclusion and domination in our society.

As has been pointed out earlier, exclusion is incompatible with creation. Exclusionary practice disrupts the process of creating new and increasingly more powerful levels of organization. As a result, evolution and conservation encounter serious obstacles, if not, indeed, become impossible. Disintegration sets in since what does not evolve cannot be conserved and begins to disintegrate.

The main problems that our civilization faces today illustrate this point. The creation of new levels of organization provides access to new resources. Without a constant access to new resources, we begin to exhaust the existing resources. Few examples illustrate better that we are not creating new and increasingly more powerful levels of organization and, as a result, exhaust resources than the current degradation of our environment. The capacity of nature to recycle human waste is an important resource. The deterioration of the environment is a vivid proof of the depreciation of this resource; it also proves that we need new approaches. Those who have proposed solutions still operate within the old paradigm that is not sufficiently powerful to deal with the current conditions. The proposals focus primarily on limiting and cutting production and consumption, which involves the introduction of policies that are very unpopular, costly, and totally ineffective. Hence, nothing has been done and our

environment continues to deteriorate. I discuss alternatives to these policies in “Squaring the Circle: in Quest for Sustainability” and “Living a Non-Anthropocentric Future.”<sup>72</sup>

Social and political instability is another contemporary problem still in need of a solution. The fragmentation of our society results in tensions, conflicts, and unrest. Most people agree that exclusion is a major source of this instability. They see the solution in creating an inclusive society. Yet the practice of inclusion remains firmly ensconced within the old liberal paradigm that can only offer selective inclusion that is basically a form of exclusion. The result is that the problem of inclusion and equality remains unresolved and social tensions continue to rise.<sup>73</sup>

Yet another major unsolved problem is the declining state of our economy. Many contributors on this subject emphasize the role of scientific and technological advances in leading us out of the current economic malaise. Yet the problem is that our research productivity continues to decline.<sup>74</sup> One widely shared view on this decline is that we have stopped generating “big ideas,” “transformative approaches,” and “fundamental breakthroughs.”<sup>75</sup>

Indeed, these problems are not entirely new. They have been present for quite some time and our civilization has found ways to live with them. However, we can no longer afford to continue this practice. The intensity of these problems has brought our civilization to a breaking point. Using a quote from Theodor Adorno, Ronald Aronson forcefully brings forth this point: “[A]lthough the progress from the slingshot to the megaton bomb is satanic laughter, not until the age of the bomb can a situation be envisaged in which all violence disappears.”<sup>76</sup>

Ideas do not exist in isolation; they have roots in levels of organization. New and more powerful levels of mental organization are the ground that gives rise to radical new ideas and innovations. The fact that our civilization lacks big ideas indicates that we do not generate new and more powerful levels of mental organization. Indeed, there have been few major new theories in physics since the creation of quantum physics, and that is close to one hundred years ago. A similar situation exists in biology where Darwinism that originated well over one hundred years ago still dominates the field of biology and evolution. The process of creation is essential for producing new and increasingly more powerful levels of organization that give rise to radical new ideas and innovations; and if we fail to understand and control the process of creation, the steady production of new ideas is simply impossible.<sup>77</sup>

### *The New Practice of Pursuing Progress*

The problems discussed in the preceding section are just some examples of the inadequacy of the current progressive practice. These inadequacies are not accidental. They reflect fundamental flaws in the current approach toward progress. The problems we face today as a result of our inadequate practice require new solutions, new ideas, and new approaches. The biggest failure of our civilization today is that it offers no new solutions. It simply proves incapable of generating such solutions. The reason for this incapacity is that we are not embracing the most important source of our power—the

process of creating new levels of mental organization that can provide radically new solutions. The main factor that prevents humanity from using its incredible

Failure to embrace the process of creation is not new to our time. Its cause is anthropocentrism that does not recognize the centrality of the process of creation to our relationship with reality. Anthropocentrism goes back to the beginning of human civilization. It is sustained by our tendency to view reality through the prism of mental constructs without recognizing the process that was involved in their creation.

The obvious conclusion that follows from these observations is that the new practice should overcome anthropocentrism that leads to exclusion, disrupts the process of creation, and makes progress extremely difficult, if not impossible. In order to overcome anthropocentrism we must stop viewing reality through the prism of mental constructs created by humans. Uncomfortable questions arise in this connection: Can we view reality in a way that does not rely on human constructs? Is there a perspective, a point from which we can view reality in a way that would not be arbitrary, subjective, and human-biased.

Many researchers assert that there is simply no other way to view reality and that anthropocentrism is ultimately ineluctable. Mary Anne Warren, for example, opines in her book *Moral Status: Obligations to Persons and Other Living Things*:

In making judgments about the moral status of living things, we are not (or should not be) seeking to estimate their value from the viewpoint of the gods, or that of the universe. We are not gods but human beings, reasoning about how we ought to think and act. Our moral theories can only be based upon what we know and what we care about, or ought to care about. If this makes our theories anthropocentric, then this much anthropocentrism is inevitable in any moral theory that is relevant to human actions.<sup>78</sup>

Warren and others suggest that the problem of anthropocentrism is irresolvable and all we can hope for is only to ameliorate its detrimental effects.

As has been pointed out, mental constructs play the critical role in the way we perceive and interpret reality. These constructs are our creations and, for this reason, are inevitably subjective. However, while mental constructs are our creations, the process we use in creating them is not. Humans did not create this process; it preceded the rise of humanity. On the contrary, the rise of humanity was a result of this process. Therefore, while mental constructs are our creations, the process of creation is not. It exists independently from our mind. Without the process of creation humans would not be able to perceive and interpret reality. The fact that we can is an eloquent proof of the existence of the process.

The existence of the process passes the test of rational justification. We cannot logically prove a non-existence of the process of creation. The proof that the process does not exist has to be created. The act of creating such proof is the evidence for the existence of this process. Without this process, we would not be able to construct such proof. Empirical proofs of the existence of the process of creation are all around us in numerous: from minute particles to atoms and molecules, to planets, stars, and galaxies.

Life and its many forms—from simple organisms and plants to higher animals and to humans—are perhaps the most astounding examples of creation.<sup>79</sup>

Given the objective existence of the process of creation, a perspective that uses the process of creation as its main organizing principle offers a view of reality that is objective, non-arbitrary, and unbiased. Moreover, as has been argued elsewhere, the process of creation offers a point from which we can observe reality, including the process of creation itself, without reliance on humanly created constructs and without falling into the trap of what Luhmann called “infinite regress.”<sup>80</sup>

This article has shown that our dominant approaches to progress are profoundly flawed. They are anthropocentric and view progress through the prism of mental constructs created by humans. They pay little attention to the process of creation. In his early contribution on the subject of progress, Bernard identified the idea of progress as being anthropomorphic.<sup>81</sup> The flawed approaches result in inadequate practice. Ethan Magistro, for example, offers a poignant critique of the Progressive approach in his article “Third Way: The Problems Posed By Progressivism.”<sup>82</sup> As many contributors on the subject of progress emphasize, a new theory and practice of progress are absolutely necessary for our survival.<sup>83</sup> Patrick Collison and Tyler Cowena, for example, are among those who vie for a new science of progress in their article that appeared in *The Atlantic*.<sup>84</sup> Craig Lundy makes a similar argument in his piece on progress. He writes:

It is vital that the critique and deconstruction of progress goes on, even if the effects that we seek from it remain elusive, but perhaps what demands even more attention are constructive attempts to engender alternatives by which I mean both alternatives to progress and alternative notions of progress.<sup>85</sup>

Taking her cues from Cass Sunstein, Amy Bert sees the formulation of an incomplete theory of progress as the solution in the method of “incomplete theorizing of progress.”<sup>86</sup>

As has been pointed out earlier, the process of creation plays the singularly important role in human progress. The new practice in pursuit of progress should recognize this fact and fully embrace the process of creation as its central organizing principle. We must focus our practice on creating new and increasingly more powerful levels of mental organization. These new levels will give rise to new ideas, approaches, and solutions that will be able to address the problems we face today and will face in the future. This incorporation of the process of creation will be a permanent solution of the problem of progress. The process of creation should be the one important subject of our continued research. We must understand this process better. Also, we should start integrating what we already know about the process of creation into our practice. This practice should observe all important aspects of the process of creation.

This article explains that the process of creation works on universal inclusion. Only by practicing universal inclusion and empowerment, only by including all available possibilities, we can produce new and increasingly more powerful levels of organization. Inclusion is not mere aggregation. It has nothing to do with the liberal idea of pluralism and toleration of differences. Inclusion involves equilibration. Equilibration combines differences that acquire each other’s properties. Equilibration creates a common frame that is broad enough to include all differences as particular cases, that is, cases that are



true under specific conditions or assumptions within an integrated whole. Our pursuit of progress can only be successful if it abandons an elitist approach and embraces the principle of universal inclusion and empowerment. One can fully agree with Ronald Aronson who, among many others, argues that progress can only succeed as fully democratic non-elitist progress.<sup>87</sup>

Another important feature of the process of creation is the balance between hierarchical and non-hierarchical interactions. In the process of creation these two types of interactions are not in conflict with each other; they operate in concert. Non-hierarchical interactions are the main source of radical novelties. Hierarchical interactions conserve and optimize novelties that emerge on the basis of newly created levels of organization. Hierarchical and non-hierarchical interactions must be in balance with each other. Consequently, the new practice should exclude possibilities when one type of interactions will dominate over the other. Without non-hierarchical interactions a system cannot create and evolve. Without hierarchical interactions, a system cannot conserve what has been created. The two types of interactions must be in balance.

Finally, equilibration of entities produces new and more powerful levels of organization. Therefore, it produces disequilibrium. Equilibration and production of disequilibrium are two complementary operations that must be in balance and operate in harmony with each other. Consequently, the new practice should welcome rather than shun the emerging disequilibrium by suppressing differences and enforcing uniformity and conformism.

No doubt, the outline of the new practice presented in these pages does not exhaust all requirements for the new practice. Future studies of the process of creation will certainly enrich our knowledge and understanding of this process, which will make the new practice more effective and efficient.

## **Conclusion**

Confusion still continues to reign in current debates about progress. The unswerving faith in progress that dominated our civilization until just a few decades ago is now a subject of bitter disputes. We are no longer certain that progress is as non-negotiable as we used to believe it was. Today many call progress “a myth” and “a road to nowhere.”<sup>88</sup>

This article disputes the rising ambivalence in the way we view progress. It argues that progress is non-negotiable. Progress is not just good; it is necessary for the survival of humanity. Progress is not a human whim. Its roots reach to the most essential feature of our universe—conservation. The article has argued that conservation involves creation and creation leads to evolution. If there is no creation and evolution, there is no conservation and no survival.

This argument leads to the conclusion that progress vitally depends on the process of creation. Recognizing the importance of the process of creation is the first important step in solving the problem of progress. Succeeding in our pursuit of progress will require more than a mere recognition. We need to embrace, study, and understand how this process works. We have to make this process the central organizing principle of our practice.

The article provides some specifics as to what the transformed practice will include. As has been explained, the process of creation works on universal inclusion. Therefore, the new practice should be universally inclusive and empowering—the two essential conditions of true democracy. The article has also explained that a balance between continuity and discontinuity and a balance between hierarchical and non-hierarchical interactions are two other important features of the process of creation. Consequently, the new practice will have to find the organizational forms that could maintain these balances.

The implementation of the new practice will have one important and transforming consequence for the history of our civilization. It will end the insidious and pervasive influence of anthropocentrism on our civilization. Viewing reality through the prism of mental construct created by humans has been the main source of all problems that our civilization experienced in the past and continues to experience today. Anthropocentrism is the main cause of the degradation of the environment, the continued divisions, strife, conflicts, and wars; it is the main reason that prevents us from having a happy and fulfilling life.

Ending anthropocentrism will turn our civilization around. It will remove obstacles to our capacity to create that have crippled our civilization and hindered its evolution. The enhanced capacity to create will generate an infinite number of new and increasingly more powerful levels of organization and thus enhance progress—progress that will guarantee the survival of our civilization into an indefinite future.

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<sup>28</sup> McClay, “Revisiting the Idea of Progress in History,” p. 11.

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