

## 6. Consequences

Humanity finds itself standing between two extremes. On the one hand, there has been no other time in history when humans have experienced so much benefit from the fruits of their transformation. For the vast majority of us, we lack essentially nothing in the way of physical and biological needs and comforts. We have an abundance of food and drink to sustain and to nourish us, so much so that we usually can luxuriate in the broad range of tastes and smells available to our plate and cup. We enjoy nearly complete safety from predators and from the elements, living in dwellings that not only provide us with adequate protection but also give us pleasure and a fulfilling sense of family and community. We engage in sex usually at our leisure and mostly for the sheer delight of it, able to plan procreation for when it is the most convenient. And nearly one hundred percent of our children survive into adulthood, experiencing upbringings full of education and enrichment, eyeing a future that foreseeably will be even better than the one we experience now. We travel with ease, even to the far reaches of the planet. We experience health and lifespans previously unheard of. Compared to the lives of the earliest of *Homo sapiens*, and compared even to the lives of our ancestors from just a few hundred years ago, we live in a near paradise. It washes over us so thoroughly we can easily take it for granted.

In addition, we live in an age where the knowledge and understanding regarding the surrounding environment has reached a nearly unimaginable depth and scope. Quantum mechanics, genetics, artificial intelligence—we seem to be on the verge of obtaining the keys to the entire kingdom, and it is entirely appropriate to think that the universe is somehow coming into consciousness entirely through human means. It is an amazing time to be part of human existence.

But on the other hand, the accelerating pace of change brought forth by the human transformation, along with the immense and growing power of that change—a power that now overwhelms any form of biological defense—this has put humanity into the most precarious of situations. We stand on the precipice of irreversibly ruining the climate for ourselves and for all the other life forms on the planet. We have brought to extinction such a large number of species that we threaten to destroy the balance of life itself. And we have developed and deployed so many weapons of mass destruction that we now have little choice but to merely hope that someone does not pull the decisive trigger and blow the whole thing up. I would liken humanity's current circumstance to that of a teenager driving a souped-up car on county roads, thrilled by the speed, thrilled by the rushing wind, thrilled by the music blaring from the stereo, but racing faster and faster around every bend and swerving more and more erratically from lane to lane. How much longer before careening out of control?

I believe humanity has come to this precarious situation in large part because humanity is lacking two useful pieces of information. One, as claimed at the beginning of this essay, humanity does not as yet understand itself, it does not yet have a grasp on what has caused, and continues to cause, the transformation that has brought this species to its current place. And two, humanity cannot as yet envisage where this transformation might be heading, or what could be its purpose. We are moving ever faster but without knowing why and without knowing which direction we might take.

The value of accurate knowledge and understanding is that it untangles difficulties and provides useful signposts, allowing us to proceed forward with greater control and mastery, with a greater likelihood of taking future actions that will be constructive instead of destructive. Humanity has seen the benefits of this kind of knowledge and understanding in so many different areas—physics, mathematics, engineering, medicine—and if we were to gain a similar level of knowledge and understanding regarding humanity's history and humanity's endeavors, we might come to find that we can proceed forward as a species with greater assurance and much less recklessness, maintaining all the benefits of the human transformation while minimizing the risks.

One place to begin is with a greater awareness—a greater degree of collective consciousness—regarding the dual source of influence that underlies modern humanity. As has been described and emphasized previously, modern humans are to be characterized as being double originated, first as pure animals and then more recently as organisms responsive to the impact of artificial construction. But few humans actually sense or are aware of this dual origin. This may be due in part to the fact that the species has been extremely successful in blending its original influences, giving the overall impression that human perception and behavior operates as a cohesive whole. For example, this blending can be observed in almost every government and corporate institution. These institutions are typically formulated around known patterns of structure, rule and design, and there is a certain degree of objective logic often guiding how these institutions are organized and run. But they are not machines. Weaved among this disinterested structure can be found a broad assortment of activities, protocols, and conventions that are clearly derived more directly from humanity's tribal origins. For instance, there is the totemic importance of the org chart, crucial for knowing who controls what piece of turf and who is to be giving deference to whom. There is the steady hum of gossip around every corner and throughout every channel of communication. There are the countless meetings, even when there is nothing of importance to discuss. And then there is the aphorism about how one manages to get ahead, namely that it is not so much *what* you know as it is *who* you know. These institutions, when stripped down to the motivations that undergird them and allow them to function, can be seen as microcosms of the broad human talent for blending both biological and non-biological influences, of displaying what might be described as an effective mixture of autistic and non-autistic traits.

But I believe the biggest reason that humans are not generally aware of the dual origin of their nature is that they have convinced themselves that human intelligence is innate, that is to say, that human intelligence is predominantly neurological and biological. Thus intelligence, the core characteristic underlying the human transformation, is categorized in the minds of almost everyone as being similar to the rest of the human instincts. We think we have *evolved* our intelligence, instead of having *built* it, and thus we regard our modern perceptions and behaviors as simply a natural extension of our biological and animal selves. But this is a fundamental mistake, a deep misapprehension of who we are and how we operate. It is a self-deluding myth.

The danger of this myth is that it obscures the inherent tension that exists between the two different sources of human influence, between on the one hand the animal aspect of humanity, and on the other hand the constructed aspect of humanity. Despite this species' effectiveness at blending these two aspects when necessary, it still needs to be recognized that in general these two aspects do not always play so well together. They come from entirely different histories and possess entirely different characteristics, and they pull this species in opposite directions. This in turn creates conflict, confusion, turmoil and obstacles to human progress, problems that will not get resolved by misunderstanding what has given rise to them.

The animal aspect of humanity is of course deeply ingrained, and also ever present, because even in the modern era humans must respond to their biological needs and demands. The key word to this aspect is *immediacy*, everything operates in the here and now, and the morality of this aspect is the morality of survival and procreation. But if this seems a bit too brutish and selfish, note also that the animal aspect of humanity has provided much of the vitality spurring this species into productive action. How much artificial construction has been instigated by a personal desire for immediate or near-term gain?

The constructed aspect of humanity, more recent and also constantly shifting, faces the daunting challenge of having to overcome entropy, of having to marshal and to infuse additional amounts of energy and complexity into the existing environment. The key word here is *expansiveness*, an ever-enlarging engagement with time and space. And the morality of this aspect centers around the need to contain the natural urge towards immediacy, a corralling of

the beast within. But if this seems a bit too onerous, take another look at the cornucopia of benefit that has been thereby gained, including the most fundamental benefit, that of human freedom. Ask yourself, would we really want to return to the circumstances of being pure animal?

This ongoing tension between these two different aspects of humanity might seem at first to be equally and well met, but this is not entirely accurate. Over the course of human history, one of these aspects has been gaining steadily in ascendancy, while the other aspect has been scrambling to retain its relevance. Before the out-of-Africa migration, and even for some time thereafter, the animal aspect of humanity continued to reign supreme. Human life then was still mostly a battle for survival and procreation, even when increasingly aided by the growing influence of artificial construction. But eventually, the constructed aspect of humanity began to take greater and greater control, and today most humans live lives dominated by the artificial construction existing all around them, with their animal selves being little more than appeased. This is a result that seems to be acceptable to many, but it is also a result that seems to be disturbing to some, and I believe a good deal of the pushback against human progress is motivated by a genuine and felt reluctance to let go of our animal selves.

And at any rate, are we even aware of these aspects that are driving our preferences and desires, are we individually and collectively conscious of the history that has forged us into the modern humans we are today? Do we as yet understand ourselves?

As challenging as it can be to understand ourselves today, it is even more difficult to foresee where it is that we might be heading. We could ask, does the human transformation have a purpose or an ultimate goal? Using the context and perspective of Big History, we might ask the same question about all the previous thresholds. The Big Bang, the formation of the chemical elements, the coming together of galactic systems, the origination of life—did these moments have a purpose or an ultimate goal, or were they instead merely a sequence of events connected benignly from one to another? The thing is, these previous events from Big History seem to us to have been predetermined, whereas we feel that humans today have the freedom to make choices. And indeed, from the modern perspective, there are many different directions this species might take:

- We could mindlessly slide into eventual destruction. Much like the teenager driving the souped-up car on county roads, we could just simply enjoy the ride until it finally comes to an end.
- Noting the harm we are doing to the planet and to the other forms of life on Earth, we could magnanimously declare ourselves to be a cancer upon this planet and voluntarily extinct ourselves. This would give Earth the opportunity to heal and to return to its previous evolutionary state.
- Noting the fragility of biology against the power of artificial construction, we could pursue the possibility of non-biological life, employing gained knowledge in physics, robotics, artificial intelligence and the like to create sentient entities more hardy than ourselves. These entities could then continue the process of accruing artificial construction, safe from the risks that come with biological entanglement.
- We could continue in much the same way as we are doing right now, but with greater awareness and a deeper understanding of what has brought us to this place. This would include an appreciation and respect for the needs of our fellow species and for the contributions of autistic individuals.

I admit to being biased, but my personal preference is for the latter choice. I cannot see the advantage of either an eventual destruction or of a voluntary return to an evolutionary past. These paths go backwards in time, to circumstances this universe has already known; I would much rather take the opportunity to experience something new. Plus I am struck by how the depth and breadth of recent understanding—the expansion of knowledge that ranges all the

way back to the beginning of time itself, and all the way across the far reaches of space, and all the way down to the most minute of subatomic particles—I am struck by how this deep and growing awareness has the character of the universe coming to consciousness about itself, an occurrence I believe needs to be respected. And finally, I cannot accept the placing of this responsibility into the care of a non-biological entity—I worry there would not be enough vitality to keep the pursuit going and not be enough awe in the presence of its more sublime results.

The human transformation has put our fate into our own hands. This was not always the case. We were once entirely determined and constrained by evolution's rules and bounds, we were not the master of our own destiny. But humans today enjoy freedom from evolutionary constraint, and they have gained the power of artificial construction, and they have the ability to increase their own intelligence. Thus, we humans, whether we like it or not, we are now responsible for ourselves and for our decisions, from which we will reap the inevitable consequences. I believe there is good reason to maintain hope and cheer. By coming to a greater understanding of ourselves and by taking responsibility for our future, we can continue to experience the splendor of that sentence with which this essay began:

The human species, our species, is extraordinary.