

A Transformation
Journey to Creative
and Alternative
Planetary Futures

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By

Victor Vahidi Motti

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TO ATTAR OF NISHAPUR,
AND ALL THE PANTHEISTS BEFORE AND AFTER HIM

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PREFACE

I am very happy to introduce Victor Vahidi Motti's new book *A Transformation Journey to Creative and Alternative Planetary Futures*. As professional colleagues and friends, Victor and I have regularly corresponded with each other over the better part of a decade, even though we have never met in person. For one thing, we live thousands of miles apart at almost opposite ends of the globe, I in Phoenix, Arizona and Victor in the Middle East. Yet, through numerous emails—with one phone conversation and one Skype dialogue as well—we have cultivated a “planetary resonance.”

Advocating for a planetary-level consciousness for humanity as a whole is the primary focus of Victor's book. Although spread across diverse and distant areas of the globe and separated by many and varied political and cultural differences, how can the totality of humanity realize a collective and reciprocal understanding and collaboration in creating a positive future for everyone and the planet? How do we come to the point where we identify with the planet as a whole, rather than some local region or nation, and identify with all of humanity, rather than just our particular ethnic or national group? At a personal level involving just two people from distant locations and distinct cultural backgrounds, Victor and I have worked toward just such a planetary resonance and supportive cooperative relationship since we began communicating with each other and exchanging our ideas.

Yet, aside from arguing for a planetary level of collaborative action and resonant consciousness, in this book Victor also emphasizes the importance of focusing our minds on the future; indeed, it is of paramount importance that we enhance our individual and collective capacities for consciousness of the future. The other key word in the book's content besides “planetary” is “anticipatory,” and in Victor's mind we need to approach our lives with a heightened, more flexible and creative, and more educated capacity for anticipation. Aside from looking out across the expanse of space and thinking at a planetary level, humanity should also look out across the forward expanse of time and think more deeply and imaginatively about the future.

It was because of our mutual interest in the future that Victor and I first made contact, both being members of the *World Futures Studies Federation (WFSF)*, a global professional organization of futurists. Aside from his

highly active and long-term involvement within the *WFSF*, where he has risen to the position of Director of the WFSF, Victor has been a great support and advocate for *The Center for Future Consciousness*, an educational and research organization on the future that I founded and direct, and he has repeatedly written about and promoted my work and publications on both future consciousness and the related topic of wisdom. In this new book, Victor highlights the importance of enhanced future consciousness and wisdom, and discusses my new book, *Future Consciousness: The Path to Purposeful Evolution* (2017), on these connected topics.

Victor and I share many other interests, which explains our intellectual resonance and friendship with each other. I have especially found Victor's multi-disciplinary approach to the future—an approach I share with him—stimulating, engaging, and on-target. We are both equally fascinated with evolution, science, and technology on one hand and culture, psychology, and philosophy on the other. We are interested in both the physical sciences and the study of mind and consciousness.

One of the key dimensions of Victor's present book is the rich and extensive array of disciplines and perspectives from both ends of the philosophical spectrum that he includes in his discussion of our "anticipatory planetary" future. Under the scientific-technological end, Victor delves into genetics, biotechnology, and human evolution; the "Internet of Things," robotics, and artificial intelligence; Einstein's theory of relativity; and cosmology, engineering, and planetary systems thinking. On the cultural, psychological, and philosophical end, Victor includes examinations of Eastern and Western mindsets; the connections of brain and consciousness; theories of knowledge and the nature of virtue; the qualities of confidence versus humility, optimism versus pessimism, and other oppositional modes of mentality; the influence of language on thinking; and peace, violence, and a "non-killing" human society. Additionally, Victor critically compares the two polarities of human thinking in discussions on theology, mythology, religion, and science as these modes of thought pertain to the future of planetary humanity. Victor also cuts across the two ends of the disciplinary spectrum in examining how neurological and pharmacological advances might shape and guide the future evolution of consciousness and mind. The diverse, broad, and balanced range of disciplines and perspectives included in Victor's book is one of its key strengths.

When Victor discusses futurist thinking and the research methods of futures studies he also includes a broad panorama of concepts, theories, and modes of inquiry. Throughout the chapters of his book he addresses holistic

and integrative thinking about contemporary reality and the future; Eastern and Western modes of thought; reason and rationality versus insight and intuition; science and art in the study of the future; Aristotelian versus non-Aristotelian logic; scenario building methods and concepts; envisioning multiple alternative futures; what it means to become a futurist; and finally, the role of science fiction in futurist thinking and imagination.

Victor and I share a strong interest in science fiction. We both believe that science fiction, both in literary and cinematic forms, is critically important in shaping the ongoing evolution of the human mind and human society. As I have stated in my newest book, *Science Fiction: The Evolutionary Mythology of the Future* (2018), science fiction is modern mythology informed and inspired by contemporary science, technology, and thinking. In each of our respective books, Victor and I both strongly argue that humanity needs emotionally and motivationally inspiring narratives of the future that are informed by contemporary concepts and theories; presenting numbers, graphs, and abstract rational arguments about the future is not enough to convince or move people. We need psychologically engaging stories of the future, with personal characters and gripping drama, grounded in modern science and modern thinking. This is the special role of science fiction as both of us see it.

So, what are the main points and central futurist visions of the book that Victor constructs out of such a rich foundation of disciplines and theoretical perspectives? As introduced above, at the core of his thinking is a vision of a preferable future where all humans have a planetary sense of identity—a “placeless” and “colorless” identity—and a heightened level of future consciousness, embracing a mindset of transformation and evolution, rather stasis or a glorified past. Victor contrasts his optimistic sense of the future with more pessimistic views popular among many futurists.

Among other significant themes that are part of his preferable vision of the future, Victor proposes the idea of a “non-killing” human society, a society of peace rather than violence, and he articulates a set of strategies for realizing this goal. In agreement with my own thinking, Victor also sees wisdom and the cultivation of virtues as a highly desirable pathway to pursue in the future development of human consciousness, character, and behavior.

Victor also devotes a whole chapter to possible innovative futures within Asia and discusses how East and West can come into increased harmony and integration in a future planetary society, placing on equal footing the complementary cultural ideals of independence and interdependence. Moreover, although Victor wants to emphasize positive and evolutionary future possibilities, part of his vision of a preferable future

is that we will be able to creatively entertain and pursue a multitude of alternative futures, rather than being mentally and ideologically locked into one dominant vision. One significant possibility connected with the ongoing evolution of A.I. and automation is a “jobless” future with humans becoming increasingly focused on self-actualization. Reality, fantasy, and virtual reality may increasingly blur in the future, opening up more creativity, flexibility, and expansiveness in human consciousness and human ways of life. Another important and highly desirable evolutionary transformation is the continued ongoing shift of power from a male dominant, male-centric society to a greater balance of male and female (or even a male-less society). As one other preferable balance, we should approach the future with proportionate levels of both humility and confidence, which is one of the important types of psychological balance evinced in wisdom.

One final integrative perspective in Victor’s book, which is especially illuminating for Western readers, is an in-depth comparison and synthesis of Middle Eastern language and thinking, in particular, ancient Zoroastrian concepts and themes, with modern ideas and language in Western science and philosophy. Victor applies this integrative vision to the nature of wisdom, comprehensive frameworks for understanding reality, and futures studies. As Victor repeatedly demonstrates, he is equally conversant in Middle Eastern thought and Western science, weaving them together in a planetary informed and inspired approach to the future.

In closing, I hope you, the reader, will find Victor Motti’s futurist visions and his thinking as expressed in this book engaging and mentally stimulating. Perhaps they will provoke you to take your own constructive actions toward the creation of a positive future and help you to create some new planetary resonances.

Dr. Thomas Lombardo
Director of the Center for Future Consciousness, USA

ACKNOWLEDGEMENTS

I come from a modest background. The basic memes that I have inherited from my parents are a big appetite for learning, integrity, patience, and hope for the future. Despite their keen talent, they were unable to go beyond primary school. I am indebted to them not only for my good genes and wise upbringing, but also for the binary oppositions that they passed down to me and that made me more creative, always analyzing and synthesizing perspectives.

Over the course of my learning, there were highly respectable teachers, friends, colleagues, and clients from whom I received reciprocal information, knowledge, and sometimes wisdom. The list is too long to remember all, especially for a person like me with a poor memory for names but a good one for faces. However, the person whose name I will not forget was the man who taught me how to read and to write, Mr. Hasani in 1985. He gave a largely self-taught person the most effective tool to enlarge and enrich his symbolic systems.

I am thankful for the prompt and continuous support of Mr. Adam Rummens, the commissioning assistant at Cambridge Scholars Publishing Ltd., because without his attention and interest this book could have not been published. Special thanks also to Dr. Yashar Saghai for his critical review of an earlier version of the manuscript. I would like to especially thank Dr. Tom Lombardo, executive board member in the World Futures Studies Federation and director of the Center for Future Consciousness and the Wisdom Page, for his continuous motivation, support and agreement to write the preface. I am indebted to my wife, Maryam Yousefianrizi, and would like to thank her for providing the peace of mind which was necessary to pull years of study into a coherent whole.

My thinking about binary oppositions, which is a central theme in this book, has been largely influenced by the impressive integral works of Dr. Sherwin Vakili, who is a scholar on complex system science and Persian mythology-theology. I am grateful to him for his kind sharing of useful resources with me and for providing helpful feedback.

Some of the chapters in this book were published under my former name in different versions elsewhere. Chapter one is a combination and evolution of three publications: an article published in 2013 by Futures – Elsevier in

a special issue on the new generation of futurists (Motlagh 2013), a chapter in the Handbook of Anticipation published in 2017 by Springer (Motti 2017), and an essay in 2012 in the Journal of Futures Studies (Motlagh, 2012). Chapter two was published with some changes in the proceedings of the international conference, Reconciling Babel—Education for Cosmopolitanism, by the Intercultura Foundation (Motlagh 2011) and also in the World Future Review by Sage (Motti 2015). Another version of chapter three was published in 2011 in a symposium by the Journal of Futures Studies (Motlagh 2011). Chapter four was published with changes in the volume entitled Futures of Nonkilling by the Center for Global Nonkilling (CGNK) (Motlagh 2012). And a different version of chapter five was published by the Journal of Futures Studies (Motlagh 2010).

Finally, this book has benefited a great deal from the superb editing of Ms. Jeanne Belisle Lombardo, and I am much indebted to her for this professional help.

Rhages, December 2018

CHAPTER ONE

THE QUEST FOR INTEGRATION AND WISDOM

The Journey is the Reward

I hail from Airyanem Vaejah and used to belong to the Persian ethnic group. My journey began when I was 17 years old. Under a natural dome of glittering stars in a clear sky, I was reading about the future in the courtyard of our house located in a valley. It was 1996, and I was preparing myself for the university entrance examination. Although there was the alternative of pursuing education in a seminary, I was falsely confident that going to a university and obtaining a degree in engineering was the only way path to a bright future in terms of having a meaningful and flourishing life. There was a hidden third alternative, even though unplanned, that later defined not only my professional career but also highly impacted my consciousness and identity. At that age I was much fascinated by, and in some ways limited to, mathematics and physics, in particular geometry.

But to give myself a break and to ponder ideas beyond the daily practice of preparing for the highly competitive standard examination, I bought a Persian translation of *Future Shock* (Toffler 1970). It was very pleasant reading: motivating, encouraging, sometimes surprising, and often a totally rewarding page turner. I digested the subject simply for entertainment, and pure learning, without connecting it too closely to the field of futures studies.

I successfully passed the nationwide examination in 1997. By 1999 life's ups and downs gradually pulled me away from pursuing a career in engineering. I began working as a translator and editor in strategic studies institutes on a part time basis while still enrolled as a full-time university student. Under the load of simultaneous study and work in unrelated disciplines, I passed the yield stress point. My life changed nonlinearly and irreversibly. I was searching, downloading and reading reports published by diverse think tanks as well as exploring many book and journal titles that dealt with long-term alternative futures.

My world expanded very rapidly beyond engineering and well into the humanities, but with a focus on decision analysis and policy development.

If my introduction to the future was a sort of “big bang,” then my later professional involvement in national strategic foresight projects as well as the translation of several books was an inflation of my sphere of thought, a synthesis of the well-known binary opposition of mechanistic versus humanistic frames of reference.

The world began to make more sense to me when I read and partially translated a volume edited by a renowned integral futurist, Richard Slaughter (1996). *New Thinking for a New Millennium* is a rich resource that offers a deep, broad, and integrated knowledge base in the art and science of futures studies for both beginners and advanced learners. The planetary thinking that shone from within it was enormously helpful when, in 2007, I became the editor in chief of the Persian Encyclopedia of Futures Studies.

The aim of the encyclopedia project, which was commissioned by a privately-owned think tank that specialized in offering professional services in science and technology strategic foresight, was to establish a reference work covering the profiles of remarkable scholars and the methods used to do futures studies.

After finding this treasure called futures studies, I did not stop exploring. I was fortunate enough that same year to apply for membership in the World Futures Studies Federation (WFSF), an international organization and the prime global body for futures studies scholarship founded in 1973 in Paris. Joining the WFSF helped accelerate my disillusionment with the higher education system and academic disciplines, with their focus on graduation and degrees. Here I was urged to pursue lifelong learning and integration of knowledge through participation in online discussions with the giants of the field from across the planet, embracing pluralism without following any dominant school. “Long term,” “Big Picture,” and “Radical Change,” which are inscribed on its logo, demanded that I practice tirelessly qualities such as creative and critical thinking in addition to honing skills such as communication and collaboration.

After delinking my identity from a job or a degree, I became gradually aware that my being in the world and achieving an authentic existence would also require that I overcome other identity attachments and break the chains of belonging to a particular country, religion, language, culture, ethnic group, race, etc. As a result—much as one falls into a committed love—I became devoted to placeless, colorless, hybrid, integral, synthetic, multiple, and planetary consciousness. This was a huge personal challenge given the fact that I was severely restricted in an isolated society governed by an anti-American integral model of theocracy and democracy, effectively

behind an internally designed and administrated wall, which was systematically reinforced by USA-led international sanctions.

Yet, I had found my calling, one that has compelled me to write this book.

A higher level of future consciousness and reflective consideration of a range of alternative possible futures as opposed to focusing on a probable single future provide the foundation upon which a shared planetary good future can be created and shaped. Such a planetary focus is critical to counter, with patience, practice, and perseverance, the rise of extreme nationalism, religious extremism, and racism. The realization of wisdom has no end point in sight. It is an open-ended vision, always evolving towards higher levels of complexity and creativity. Moreover, building a united anticipatory capacity for humanity while transcending its valuable but divisive diversity requires us to prepare ourselves for a transformative journey, one that must traverse vastly different valleys. I hope what is presented in this road map for charting those valleys will be both reasonably convincing and emotionally motivating.

The Argument for Future Consciousness

Human babies are sensitive to their future even before they are born. They collect information about the world outside of the womb to better secure their survival after birth. If done correctly, their physiology will become more adaptable to the birth environment. But poor anticipation will enhance the likelihood of illnesses in adulthood. Therefore, in a sense, we are all natural-born environmental scanners, and the more accurate we are before birth in making sense of the world, the more likely we will survive and develop (Barker 1990). This remarkable ability is not exclusive to humans, of course. For instance, scientists have shown that apes can also plan for the future because they can pick tools for future use (Mulcahy and Call 2006). The emergence of such a level of future consciousness, therefore, has a very long history that goes back more than 14 million years in the tree of life and its evolution. A more sophisticated level of future consciousness is also observable in infants because, according to cognitive scientists' experiments, they can perceive and recognize the difference between probability and possibility (Téglás, et al. 2007).

Assuming such an evolutionary background for these increasing levels of future consciousness, the question is how to reinforce and to refine it. We can propose three key principles and build upon them the argument for future consciousness. They are a) the future is not trivial, b) the future has priority now, and c) the future is open to critique.

If the future is not trivial, i.e., it does not simply contain a single element as in a trivial set, then we need to explore a range of multiple futures, including classes of possible, probable, and preferable futures. After all, what we advocate is *futures* studies, with an emphasis on the plural, and not merely future studies. Such an understanding is sometimes shown aesthetically in a visualization called the *Future Cone* (Voros 2017). Such an approach also helps us to diverge from the path traveled by forecast and prediction professionals, who tend to trivialize the future and assume it to be less complex and more certain than it should or deserves to be. And since futures are open to critics, we need not only reliable scientific and artistic methods that can be communicated and shared but also various value systems on which to base these critical views. What people value more is clearly preferable for them; thus, a recurrent theme that we need to explicitly clarify is just whose future we are discussing.

A significant part of the human population is, unfortunately, under the heavy influence of different kinds of fatalism, determinism, and religious end-of-time mythologies. Such a worldview promotes a single future that is simultaneously possible, probable, and preferable. In some cultures, provided that doubt is not cast on the single future related to the fate of the Earth and the whole universe, one is allowed to question that single future and to develop, as a result, multiple futures in specific government, corporate, and personal settings.

The plural conceptualization of *futures* rests on the limits of the natural languages. For Persian, English, and Italian speakers, adding *ha*, *(e)s*, and *i* to the associated nouns makes them plural. However, in Arabic and German, even if you tinker with the grammatical rules, the plural word does not sound familiar to the ears of native speakers.

Boroditsky (2009) argues that “even what might be deemed frivolous aspects of languages can have far-reaching effects on how we see the world”; he offers the example that for German speakers a bridge is beautiful and slender due to its feminine noun, whereas for Spanish speakers a bridge is strong and sturdy due to its masculine noun. In an Arabic paper that a Baghdad-based futurist political scientist and I wrote, we had to break and mix the masculine and feminine rules and use the plural (*Mostaghbalat*) for the singular word *Al Mostaghbal* (Motlagh and Atwan 2010). But Samir Ghabbour, the late founding member of the WFSF, assured me that “it has already been extensively used” in the Arabic literature of futures studies in Egypt.

The circumstances with respect to Arabic demands more attention given its rather unique structure. Some deeper investigation suggests a host of insights into the role of language in shaping our thoughts about futures. In

modern Arabic, speakers often use *Al Istishraaf* to encapsulate futures studies. The meaning of this Arabic word, which is built from the root *sh, r,* and *f,* includes a “cloud of interrelated notions.” Thus, if it is translated into any particular variation of the word, it may lose the linguistic richness and connotations of the original word. *Al Istishraaf* is about going up to the highest ground or guard tower to overlook or oversee the landscape from above. It also suggests raising your feet or putting ones hand above the eyebrows to better see the distant horizon, thereby lending itself to making conjectures about or investigating or aligning with the future; to be prospective and sustain such an outlook; or to have a window through which to completely see into an open or closed space; or anticipating something with enthusiasm and excitement. The word also connotes looking forward and hoping or knowing and making sense. In addition, it is connected to the notion of excellence, pinnacle, nobleness, respect, honor, and pride, or welcoming wholeheartedly a guest or a stranger.

In ancient Arabic another term, *Tawil Al Ahaadith*, sheds light on how futures consciousness, and strategic foresight as a profession, have evolved throughout recorded history. The expression comes from two tri-radical roots, namely *a, w, l* and *h, d, th*. *Tawil* aims to uncover what was or could be originally intended. It also suggests the implications and eventual outcome. Thus both backward and forward directions are concerned. It makes possible an open interpretation of events and establishes a correspondence between images inside the mind and the outer reality in the world. Through it we need to consider a space larger than the trivial and are urged to explore the deeper layers of meaning, including allegorical and esoteric interpretations. The second term in the expression, *Al Ahaadith*, a plural term, is even more interesting. It could mean the basic units of data and flow of information communicated via the speech and conversation of ordinary people. And as an adjective it means new, fresh, modern, recent, and contemporary, what is emerging and non-existent in the past, the news. In yet another framework, one can pack a myriad of surprising and extraordinary events and awesome stories into the term as well. Extracting useful and non-trivial insights from a large volume of data is what can be done through *Tawil Al Ahaadith*.

In our modern world, companies like Lockheed Martin win million-dollar contracts to provide the same service, albeit by application of a different toolbox that is available to data scientists. They aggregate data from social networks to obtain estimates about unrest across the globe (Giles 2012).

A comparative study of *Tawil Al Ahaadith* hermeneutics and data science reveals some important connections between them, which are shown in **Table 1.1**. It shows how the key elements of top quality futures

studies have transformed and evolved based on sources, material, goals, methods, practitioners, products, and other features. A common line connecting all of them is that, as a profession, *Tawil Al Ahaadith* and data science are at once art, which needs talent and creativity, and science, which, as discipline, can be learned. One can argue that the term *Strategic Foresight*, based on Slaughter's (2002) integral definition, is a general and comprehensive description that includes them all.

Table 1.1 Comparison of futures work elements based on the terminology used

Terminology used	Tawil Al Ahaadith	Hermeneutics	Data Science	Strategic Foresight
Material and Sources	Conversations, talks, events, news, incidents, occurrences, developments, information, stories	Text, speech, statements, signs, script, phenomena, myth	Data, text, voice, news, feeds, tweets, web, blogs	Intentional, behavioral, cultural and social (integral) quadrants
Goals	Reliable insight into the future	Truth, understanding	Business value, understanding, learning, sense-making, prediction, forecast	Create and maintain a forward view, guide policy, shape strategy
Methods	esoteric interpretation	Interpretation, semantics, genealogy	Mathematics, statistics, models, analytics	Futures/Foresight Research Methods
Practitioners	Joseph, the posterity of Jacob, Isaac, Abraham	Scholars, critics	Experts, data scientists, machines, computers, AI	Futurists, scholars, experts, ordinary humans, machines,
Products	Prophecy, deep meaning, intelligence on real outcomes	Deep meaning, knowledge, roots, intentions	Anticipatory meaning, knowledge, intelligence, patterns, insights	Organizational useful insights
Features	Intuitive, open, implied, allegorical, metaphoric, esoteric	Subjective, revealed, allegorical, inwardness	Sophisticated, advanced, creative, visualizing	High-quality, coherent and functional

Based on the connections shown in **Table 1.1**, it is clear that we need to become involved in *Tawil* or deep insight generation based on interesting stories, images, events, and daily conversations, all in all known as *Al Ahaadith*, to explore future scenarios. When playing the role of an adviser, therefore, a professional futurist, should apply this set of qualities and skills in organizationally useful ways to detect threats and opportunities for governance, to guide policy making, to shape strategy building, and to provide strategic intelligence on the future.

Plurality, Wholeness, and Wisdom

Referring to the three key principles introduced above, one can infer that it is necessary to do participatory and interdisciplinary futures studies. Because the future is open to criticism, some diversity of opinion and background is necessary. The more individuals in a group, the more likely that group is to achieve diversity of opinion. Moreover, low participation generally translates to more focus on the present by the majority. This will imply that the future is not a priority now, which contradicts another key guiding principle. As a result, multiple futures of the world should be discussed with the so called “global south.” Otherwise, participation will be limited to the global north and therefore lacking pluralism and wholeness.

Key futures studies scholars have charted different categories with respect to theories of knowledge. They have also characterized the succeeding waves of futurists. Both the schools and their graduates are distinguishable from each other even before identifying the methods or tools they apply (Motti 2017). Such categories, we might say in the West, essentially revolve around two main rival camps of philosophy, namely analytical and continental. However, there has always been a call for the broadest and the deepest possible approaches to futures and, in the end, for integration. Integration demands that we include yet go beyond the solid boundaries and the current level of understanding and, if possible, produce a meta coherence of all knowledge. The eventual aim is to motivate some transcendence of consciousness and help to make a positive anticipatory impact on the planetary scale in the present time. In other words, global futures have priority over local futures. However, in the following chapters, we will see why “planetary era” is a better description than “globalization”: the former is driven by enhanced and integrated consciousness across schools, disciplines, cultures, and civilizations whereas the latter is framed around and related to the trade and the flow of products, services, capital, and workforces. This distinction, of course, requires an eclectic or syncretic approach that rests on the perception of wholeness and its associated holistic

beauty. Are we, for instance, mixing water and oil, or are we, rather, integrating rainbow colors in a prism?

Moreover, today smart machines, robots, and sophisticated automated algorithms are taking over many data-driven, trend-analysis, web-summary, and statistical tasks, which can remain focused on the objective analysis of the external reality. What will be in demand, in an era characterized and driven by the commoditization of futures studies, are those qualities unique to human engagements that facilitate and motivate a design and critical futures approach.

For example, questioning the language neutrality and terms used to impose a particular framework on an issue and its futures is prescribed and sought after. This task is often overlooked in the empirical schools. For instance, is it really appropriate to call a developing field “artificial intelligence,” which claims implicitly some human level of consciousness and assumes some self-conscious ontology of the world and its human written codes? Or is that nomenclature indeed false, the true picture simply concerning, in technical terms, some rapid data processing to compute an arbitrary function in reference to universality theorem and using the back-propagation algorithm in diverse business applications? Obviously the latter and more accurate terminology is not appropriate for marketing purposes of AI products and services. It simply does not sell.

Gidley (2017), a former president of the WFSF, provides a unique authoritative and critical work based on original sources and investigates both the depth and the breadth of future consciousness, meta-coherence of all knowledge, and holistic thinking across civilizations. She is also known to suggest that we need to transform the current education system such that it might address the post formal learning that spans pluralism, wholeness, and complexity (Gidley 2016).

There are a few handbooks available for those who want to achieve pluralism and wholeness through futures studies, recognizing that their expertise is zero if compared to the vast big picture. Poli (2017) has edited a volume that provides a helpful introduction to the unifying framework of anticipation, one that attempts to reverse the trend of the increasing fragmentation of the sciences and calls for a “closer integration, mutual knowledge, and dialogue” with an emphasis on replacing the “dominant past-orientation to a new future-orientation.” Consider, for example, how psychology and the treatment of mental disorders would be different if therapists shifted from a focus on individuals’ past painful memories to their hopeful future visions. Another handbook that integrates theories of knowledge in a method called “causal layered analysis” also supports pluralism and wholeness to arrive at an alternative framing of futures. It

deals with questioning the underlying narrative and motivates a transformation journey that begins with deconstructing the often used futures of others (Inayatullah and Milojević 2015).

Lombardo (2017) argues that heightened future consciousness and wisdom are essentially the same if we run a comparative analysis. Wisdom, by definition, is about a deep understanding of history and the present, and he emphasizes that it should include the application of broad cognitive, emotional, and evaluative capacities to future possibility as well. The central theme in Lombardo's work is harnessing the empowering capacity of the human mind and consciously imagining, thinking about, and evaluating envisioned futures. This will in turn enable "flourishing in the flow of purposeful evolution," and creating a good future that entails, of course, "the holistic character virtues of heightened future consciousness."

Lombardo is also an expert focused on science fiction as a bedrock source of futures studies and its role in the acceleration of the future. If science alone is not enough to encourage the myriad possibilities of the future, then the story, characters, and drama in science fiction will help bridge the cognitive and the emotional, "resonating" with both our minds and our hearts. In the end, if we want to instill an alternative mythology that will both enlighten and inspire us while replacing (or building on) the ancient and outdated conceptions of reality, then a synthesis of science and fiction is absolutely necessary. We must address the big questions about the cosmos and human existence not only through reason and science but also through the innermost passions and dreams of the human spirit.

We cannot challenge, for example, end-of-time religious thinking, which might contribute to more bloodshed, and propose instead alternatives for global peace and planetary progress by promoting science, reason, and humanism alone. A reliance on data to chart an optimistic picture of the world that celebrates the outcome of the Enlightenment, an approach highlighted by Pinker (2018), is not enough. Theology and mythology are isomorphic in the mathematical sense. There is a one-to-one correspondence between their elements that also preserves their structures when mapped to each other. In other words, they are essentially the same if seen from the outside. What is actually needed to effectively replace ancient conceptions of reality, in addition to data collection, are motivating tales that communicate moral messages and establish a new mythology exclusively informed by science and contemporary thought.

Big Space, Big Time, and Integral Complexity

The idea of Big Space-Time has an ancient history originating in Persian mythology-theology credited to Zoroaster. Also attributed to Zoroaster is the ontological foundation for many binary oppositions that has endured to this day, such as good versus evil, true versus false, light versus darkness, chaos versus order, creation versus annihilation, wisdom versus ignorance, etc. Through historical interactions and reciprocal relations with other civilizational ancient tales, this underlying conception of reality concerning space-time has contributed to the emergence and evolution of numerous mutated—essentially the same yet manifestly different—versions of mythology-theology, culminating in the rise of alternative religions and their respective end-of-time thinking. For example, an original legendary tale that has been appropriated and mutated in different theologies is the famous Persian traditions of Chinvat Bridge and Hara Berezaiti mountain. These tales present the binary opposition of heaven versus hell, as well as giving prominence to a sacred mountain from which a new religious leader will descend with new spiritual laws.

According to a now vanished variant of Zoroastrianism, the entire and integral notion of space-time is represented in the mythological figure of Zurvan as the supreme deity or the infinite and unbounded first principle. This single entity differentiates into two manifestations of the god called Vāta-Vāyu, i.e., atmosphere, wind, air, and breath, all representing Big Space—cosmos and life—sometimes worthy of worship and sometimes linked to the devil spirit. Zurvan further differentiates into Ahura Mazda (Lord of Wisdom) versus Angra Mainyu (Angry Mind), representing the overarching binary oppositions that operate during bounded Big Time. The battle between wisdom versus ignorance, creation versus destruction, chaos versus order, and the other related set of binary oppositions mentioned above, spans 12,000 years.

This epoch of bounded time is divided into four periods of 3000 years, each describing a shift or transformation of humanity and its consciousness to the good future, characterized primarily by good thought, good talk, and good action. According to the Zoroastrian calendar, we are now in the fourth stage of Big Time. In this period a new savior, born of a virgin female who becomes pregnant from lake water, will appear at the end of each millennium. The last one will be Saoshyant (“One Who Brings Benefit”), who, by the glory of Zoroaster’s posterity, will deliver the planet and humanity from ignorance, oppression, pain, impurity, and injustice for eternity.

Vakili (2014), a social scientist with a background in biology and an expert on Persian mythology, has developed and applied a prescriptive integral model to complexity in which he uses the anti-hero and hero binaries from Persian mythology for naming the solutions. This schematic clearly puts an anticipatory emphasis on future individual savior figures in the well-known binary opposition of agent versus structure. Zurvan here is an inspiration for unbounded, unlimited, personal, and hero's time which is different from objective, shared, common, modern, socially structured, and calendar based conception of time and reality. He begins with the ontologically integrated being, a unified coherent whole which is, for epistemic or scientific modeling purposes, differentiated into four descriptive levels: biology, psychology, society, and culture. As a whole, these represent the unified and integrated self-conscious individual or "I." Each of these four levels includes a complex system that is autopoietic, i.e., it reproduces and maintains itself as a functional unit. These units are called body, personality, institution, and *manesh* (Persian for distinctive idea or mental characteristic), respectively. The units also follow the rules of the evolutionary systems of replication, mutation, and natural selection toward more growth in space-time and reproduction through increasing levels of complexity, defined as the number of elements in the system multiplied by the density of connections. **Table 1.2** compares the four layers in terms of several key factors.

Table 1.2 Four descriptive hierarchical layers. Reproduced from source: (Vakili, 2016) with permission

Layer	Biological	Psychological	Sociological	Cultural
Processes	Physico-chemical	Neuropsychological	Institutional	Symbolic
Functional unit	Body	Personality system	Institution	Manesh
Recursive cycles lead to	Biochemical hyper-cycles	Rational-emotional processes	Systems of symbolic interactions	Semantic symbolic referential systems
Layer have internal hierarchy	Quite high	Very low	High	Low
Spatial scale	Micron-meter	Meter	Meter-Kilometer	Kilometer
Temporal Scale	Microseconds	Seconds	Minutes-days	Decades-centuries
Configuration	Structural	Functional	Structural	Functional

A deep insight obtained from this model is the identification of important objectives that shape each subsystem's organized behavior, which can be maximized. For society and institutions, the objective is power (*Ghodrat* in Persian). For psychology and personality, it is pleasure (*Lezzat*). For biology and body, it is survival (*Bagha*). For culture and *manesh*, it is meaning (*Ma'na*). Abbreviated as *GH-(A)-L-B-(A)-M*, they are *MYHEART*. All these levels, units, and innate goals are interrelated, and the overall regulated behavior of the whole system emerges from them.

An intriguing feature of the Zurvan integral model and the associated theory is revealed when Persian mythology is used on the final result or output of the model—when practicing diverse applications to offer solutions and “wise” strategies for personal, organizational, national, and civilizational transformation through a focus on the transcendence of individuals' consciousness. One can frame any problem on the biological, psychological, sociological and cultural levels through a web of interrelated binary oppositions, then provide a description of “devil traps” and suggest integral wise strategies. Thus the mythological characters with all their drama become vehicles by which to communicate the prescriptive message in the scientific model. **Table 1.3** illustrates this approach with a few examples using descriptive layers, binary oppositions, illusory belief, devil trap, anti-hero, wise strategy, and hero.

Table 1.3 An illustration of Zurvan integral model applications to find wise strategies. Adapted from source: (Vakili, 2014)

Layer	Binary opposition	Illusory belief	Devil trap	Anti-hero	Wise strategy	Hero
Biology	Strength vs. Weakness	Physical strength is bad because it leads to social power and dominance	Strength in the biology layer generalizes to other layers	INDRA	Obtain the maximal and expansive skills for a vigorous body without mistaking it for social-political dominance	BAHRAM
Biology	Healthy vs. Unhealthy food	Food source and food rituals are required and are more important than their mixture and nutrition value	Hunger, thirst, fasting, diet and complex rules on forbidden or allowed food and drink	SHAHRASP	Focus on the biology level for optimized nutrition and do not involve redundant irrelevant rules from psychology, sociology and culture	HAURVATAT & AMERETAT
Biology	Old vs. Young	Timeless bodies and ignorance of external exhausting factors	Ageing is constant, and similar, and uniform in a generation of people	ZAURVAN	Optimized ageing trend, avoid damages, and consider rejuvenation like earth	ZAM YAZAD