Science Fiction: The Evolutionary Mythology of the Future
Tom Lombardo, Ph.D.
Center for Future Consciousness

Abstract

Science fiction generates holistic future consciousness. As futurist narrative, it resonates with the natural psychological disposition of giving meaning to life through stories. Science fiction encompasses the future of everything, and stimulates cosmic consciousness.

Science fiction can be traced to multiple origins, one of which is ancient myth, with which, though grounded in the scientific vision of reality, it shares many features. Science fiction is mythic holistic future consciousness.

Science fiction is evolutionary in that continually builds upon past ideas. The scientific theory of cosmic evolution provides the fundamental narrative framework for modern science fiction. As the evolutionary mythology of the future, science fiction facilitates the purposeful evolution of holistic future consciousness.

Science Fiction as a Way of Life

As a young boy growing up in the 1950s, I was drawn into the wondrous, strange, and at times frightening world of the future through the movies. At my neighborhood theatre, I watched—totally mesmerized—the classic science fiction movies, The War of the Worlds, When Worlds Collide, The Time Machine, and the best of the best, Forbidden Planet.

I specifically remember, after watching The War of the Worlds, that the movie tremendously excited me; my total conscious being came alive in the cinematic experience. I was inspired to write a short story of aliens invading the Earth; I created illustrations for the story and designed costumes as well. I recruited some of my friends to play the different roles in the story. We were going to “live the future,” a future of space ships, aliens, and great battles to defend the earth.

The movie The War of the Worlds engaged all the dimensions of my conscious mind, exemplifying the “total person immersion” that science fiction can generate. It stimulated my senses; excited my emotions through its drama; inspired my motivation to act; elevated my intellect and imagination; seeded my creativity; and provoked in me a desire to share this powerful experience with my friends. It gave me a sense of personal identity—I was going to be a writer of science fiction.

My fascination with science fiction has continued up to the present, and I have written about science fiction and taught numerous workshops and courses on the topic.
Observing the various modern approaches to the study of the future, I have come to the conclusion that:

Science fiction is the most visible and influential form of futurist thinking in contemporary popular culture.

Aptly illustrated through my experience with The War of the Worlds, I believe science fiction is so popular because, in narrative form, it speaks to the whole person—intellect, imagination, emotion, motivation, behavior, and the senses; the personal, social, and cosmic; the secular and the spiritual; and our values, ethics, and aesthetics—stimulating and enhancing holistic future consciousness.

I define “holistic future consciousness” as the total set of psychological processes and modes of experience and behavior involved in our consciousness of the future. It includes our hopes and fears about the future; our planning, our strategies, and our goals; our images and visions of the future; the stories we tell ourselves about where we are heading in the future; and our purposeful behaviors to create desired futures and prevent negative possibilities from occurring. It is the total Gestalt of our experience and engagement with the future (Lombardo, 2006a, 2011a).

Science fiction taps into all of this. It brings the future alive within our minds and our lives. It personally draws us into the fantastical possibilities of tomorrow. Through science fiction, we feel and experience the future along all the dimensions of the human mind.

For many people science fiction has become a total way of life—a way of experiencing and creating reality, and in particular, the future. Science fiction fandom and the global science fiction community is an immense, highly diverse, and continuously growing association of groups and individuals, immersed in the gadgets, garb, iconic roles, imagery, art, paraphernalia, computer games, virtual realities, cinematic productions, archetypal characters, conventions and conferences, and literary works of science fiction (Clute and Nicholls, 1995).

An excellent example of this cultural phenomenon is the “Trekkies,” comically and vividly realized in the central characters of the TV show The Big Bang Theory. Aside from their enthusiastic involvement in the Star Trek subculture, the main male characters, Sheldon, Leonard, Howard, and Rajesh, are also active participants in the comic book/super-hero and gaming subcultures, two other significant dimensions of the science fiction community. They live science fiction, they cherish it, they dress it. They collect memorabilia, posters, and action figures; they attend conventions; and they regularly socialize through science fiction game-playing and TV-viewing. They dress in science fiction costumes (vicariously adopting the identities of science fiction characters). Sheldon adopts the garb of both Flash and Mr. Spock, the latter, at times, haunting him in his dreams. Sheldon’s ego-ideal is a combination of Flash and Mr. Spock, a synthesis of speed, science, and intellect. It is a standing joke that Sheldon’s friends think he is an alien. At times it seems that Sheldon believes so as well.
Science Fiction as Futurist Narrative

A big part of the psychological power of science fiction can be found in its narrative form. Humans are psychologically disposed toward making sense of themselves and the world, and the universe as a whole through stories. Through our narratives we give meaning and purpose to our existence; we create our personal identities through internal self-narratives (Damasio, 1999, 2010; Wilson, 2011). Societies create a collective sense of identity and vision of the future through shared narratives, encompassing and integrating past, present, and future (Polak, 1973).

Science fiction, as narratives of the future, naturally resonates with the deep structure and dynamics of the human mind, giving our lives meaning, drama, and a sense of direction toward the future. Although not all science fiction deals with the future, its primary focus has been on the possibilities of the future. In this regard:

*Science fiction can be defined as a literary and narrative approach to the future, involving plots, story lines and action sequences, specific settings, dramatic resolutions, and varied and unique characters, human and otherwise. It is imaginative, concrete, and often highly detailed scenario-building and thought experiments about the future, set in the form of stories.*

A good story about a possible future, with its drama, action, and sensory detail, is psychologically more compelling and realistic than an abstract theory, static image, depersonalized futurist scenario, or statistical prediction about the future. An engaging narrative, involving sequential and causative action, brings a living presence and propellent energy to a vision of the future. Science fiction narrative also personally draws us into a rich vicarious experience of the future through its vivid and memorable characters. Science fiction contains a host of unique and strange characters, admirable, villainous, and enigmatic, concretely realized and richly described. We live the story through the characters; we personally connect with them, or are personally repelled by them. All told, through science fiction narrative, we are able, at a deep and intimate level, to live and feel the future.

Cosmic Consciousness and The Future of Everything

A common stereotype, reinforced by the techno razzle-dazzle of science fiction cinema and special effects, is that science fiction is predominately about the future of technology and science. But this vision is way too narrow.

The name “science fiction” was coined by Hugo Gernsback around 1929 in his pulp magazine *Science Wonder Stories.* Gernsback, inspired by the writings of H.G. Wells and Jules Verne, envisioned a new literary genre that was entertaining but also educational. In his mind, its educational purpose was to teach about the future possibilities and wonders of science and technology (Clute and Nicholls, 1995). But, both before Gernsback and clearly afterwards, numerous “science fiction” writers have
delved into the future of society, culture, ethics, the environment, madness and the human mind, war, the sexes (and sex), and even spiritual and religious topics. Throughout its history, all dimensions of the future have been explored in great depth and detail and from numerous perspectives by science fiction writers.

As one excellent example, “A Rose for Ecclesiastes” (1963) by Roger Zelazny challenges the popular stereotype of science fiction as technological extrapolation into the future. There is some future technology in the story, but the narrative’s primary focus is psychological, cultural, and religious. The central character is a poet, a linguist, and a classical scholar, rather than a mad scientist. He is a literary genius, assigned to Mars to study the language and culture of its indigenous population and ancient civilization. Zelazny’s story is included in volume one of The Science Fiction Hall of Fame (Silverberg, 1970), a collection voted by the Science Fiction Writers of America as the best science fiction stories ever written, up through 1965.

“A Rose for Ecclesiastes” delves into the meaning and purpose of life, religious prophecy and fate, love and the weaknesses of the human heart, and the meeting of different cultures from different worlds. It is a mystical and humanistic tale. And these qualities are not unique to this story within science fiction. Throughout its history, science fiction has continuously addressed psychological, cultural, and spiritual-religious issues and themes. We need to significantly broaden our narrow vision of science fiction as simply technological extrapolation.

I would propose that science fiction is about the future of everything. Of course it delves into future technologies and space travel, but it also explores all of the psychological, social, and philosophical areas listed above. For anything that has a future, science fiction gets into it.

Dan Simmons’s novel Hyperion (1989) powerfully illustrates how science fiction is about the future of everything. Equally so, it demonstrates how science fiction can realize (when it is done well) literary excellence, contradicting the view that it is juvenile in plot, characterization, and style. The language of Hyperion is rich, poetical, expansive, and colorful. Modeled on Chaucer’s Canterbury Tales, Hyperion tells the story of seven pilgrims who are journeying to the planet Hyperion, having been sent there by enigmatic forces, which include super-intelligent computers (A.I.), and personages within the Catholic Church. The pilgrims’ mission is to confront the Shrike, a giant metallic being covered in razor-like blades that is killing human settlers by the thousands and seems to come from the future. On the journey, each pilgrim tells their personal story of how they came to this critical juncture in their life, journeying to this alien planet; the pilgrims include archetypal figures, such as a poet, a philosopher, a warrior, and a priest.

As the first in a series of four novels written by Simmons (1989, 1990, 1995, 1997), that he collectively refers to as the Hyperion Cantos, and spans three centuries beginning in the 29th century, we find (as a sample) the following events and themes: the promise of immortality, which involves selling your soul to the Devil; a philosophical debate between a future Dalai Lama and the Grand Inquisitor; the reincarnation of the poet
Keats within cyberspace; nanotechnologically enhanced humans who live in outer space; a giant tree that is a space ship and an even more gargantuan solar ring that is also a tree; the fall of human civilization and the rise to power of a corrupt Catholic Church; innumerable alien ecologies and forms of life and civilization; and the Second Coming—the mythic narrative of death and resurrection—realized through time travel. Oh, and the Second Coming is a girl.

The *Hyperion Cantos* is a complex vision of a possible future, covering all dimensions of human life—technological, scientific, psychological, social, ethical, cosmic, and religious. It is a grand and rich narrative—a future of everything—informed by classical literature and thought, yet pointing toward an amazingly bizarre and mysterious future.

Good science fiction frequently creates a fully realized, multidimensional vision of the future. The real future will be an interactive synthesis of all dimensions of human reality. John Brunner’s *Stand on Zanzibar* (1968), Neal Stephenson’s *The Diamond Age* (1995), and Ian Macdonald’s *River of Gods* (2004) are some additional examples of novels that envision rich, multidimensional possible future human societies.

The expression “the future of everything” can have two different meanings. “Everything” can refer to all the different dimensions of the future—technological, environmental, social, psychological, and religious. But “everything” can also mean the “big picture” of it all—of existence and reality as a whole or totality. “Everything,” in this second sense, implies a “cosmic perspective.” A science fiction writer may talk about the future of the universe, or delve into the ultimate nature of reality. And given that science fiction, as narrative, places specific characters within its imaginative settings, we may find ourselves (through the eyes of the characters) contemplating our own place in the big picture of things. Part of the depth of science fiction—of profoundly challenging and engaging our minds—is that it provokes within us states of “cosmic consciousness,” of pondering the nature of the universe and our place within it.

Consider the story “Surface Tension” (1952) by James Blish, another tale voted into the *Science Fiction Hall of Fame*. The setting is a puddle of water on a distant planet, sometime in the future. In this puddle live tiny humanoid creatures; as far as these creatures know, their puddle of water is the entire universe. The surface tension of the puddle has prevented them from breaking out of the puddle, to see if anything exists on the other side. But among these tiny creatures, one group has constructed a rocket ship, to blast through the surface of their puddle and see what lies beyond. Many of the other tiny humanoid creatures feel this is a foolhardy idea; the puddle is the universe, and why attempt such a dangerous mission in attempting to venture beyond? The adventuresome group remain undaunted; they blast off from the bottom of the puddle, break through the surface, and land on the surrounding ground encircling the puddle. They exit their ship, look up, and see the night sky and the brilliant panorama of stars within the heavens. Who would have believed? They are bedazzled and blown away—the universe extends vastly beyond anything they realized. They experience the awe and wonder of expanded cosmic consciousness.
“Surface Tension” is, of course, an allegory, because we are the tiny humanoid creatures living in our metaphorical puddle of water that we incorrectly identify as the entire universe. Moreover, we are comfortable and protected in our limited worldview, and have no wish or inclination to extend ourselves, reaching out with our bodies and our minds to what may lie beyond. Yet, some of us (the adventuresome ones) have the courage and imagination to attempt to reach beyond—to transcend the constraints of the normal and the immediate here and now. These explorers are science fiction writers. In breaking through the veil of appearance, the courageous and imaginative ones can now see themselves more accurately and deeply—can place themselves in the truer, more encompassing big picture of things. “Surface Tension” is an allegory on the nature of cosmic consciousness—of what prevents us from realizing it and what it means to achieve it.

On the grandest of scales, however, no one surpasses Olaf Stapledon in taking the reader on colossal imaginative adventures that explore the future evolution of the human mind, society, ethics, philosophical enlightenment, and human transcendence. With this Oxford philosopher and science fiction writer, we ultimately journey on a cosmic quest in search of God.

Olaf Stapledon’s novels, Last and First Men (1930) and Star Maker (1937), propel us on journeys that progressively extend outward, covering billions of years into the future and the entire spatial expanse of the universe. Stapledon’s fundamental narrative is the cosmic evolution of intelligence and communal consciousness; we see ourselves within the biggest picture imaginable to the human mind. Other more recent science fiction novels that realize cosmic perspectives on the future of humanity and the universe, include Stephen Baxter’s Xeelee (1997, 2010) and Manifold (2000, 2001, 2002) series; Greg Egan’s Diaspora (1997); Robert Charles Wilson’s Darwinia (1998); and for a comic excursion into the mind-boggling, farthest reaches of space, time, and artificial intelligence, Cory Doctorow’s and Charles Stross’s post-Singularity novel, The Rapture of the Nerds (2012).

The Mythology of the Future

As my next major point, I propose that: Science fiction is the mythology of the future. There are many historical tributaries that contributed into the development of modern science fiction, including utopian thinking, Gothic romance, the birth of modern science and astronomy, and the Enlightenment philosophy of secular progress, but of special note, we can historically trace science fiction back to fantastical and mythic tales in ancient times (Roberts, 2005; Lombardo, 2006b). Though modern science fiction (to a degree) broke free of the theories of reality that informed ancient myths, the genre has retained many of mythic features at psychological, literary, and social levels. In contemporary times, science fiction serves many of the same functions that ancient myths provided for humanity. It realizes mythic consciousness about the future.
Within the modernist scientific era, ancient myths, prophecies, and fantastic tales, are seen as without scientific credibility, consisting of nothing but wishful thinking and uninformed fantasy, rather than being grounded in fact.

But if we turn to the modern scholar of myth, Joseph Campbell, we find a much more positive view of myth. Within his book *The Power of Myth* (1988), he asserts that through myth, “... what we're seeking is an experience of being alive...[to] feel the rapture of being alive.” According to Campbell, myth facilitates this heightened level of experience, this rapture of personal existence.

Additionally, he states that “Mythology is ... the song of the imagination...” Mythology, for Campbell, is aesthetic, lyrical, and expressive, key qualities in the fullest and deepest expression of human consciousness and our experience of life. A song is a celebration, a romance, a revelation and expression of beauty. These experiences are essential to a fully realized life.

Campbell further suggests that one of myth’s main functions is a “...mystical function...realizing what a wonder the universe is, and what a wonder you are, and experiencing awe before this mystery. Myth opens the world to the dimension of mystery, to the realization of the mystery that underlies all forms...If mystery is manifest through all things, the universe becomes, as it were, a holy picture. You are always addressing the transcendent mystery through the conditions of your actual world.”

Where there is mystery and the unknown, humans have created various stories to make sense of what lies beyond. Campbell, in this last quote, is arguing that myth acknowledges, if not highlights, the mystery of existence and the “transcendent” unknown realm. Myths keep our minds open, through awe and wonder, to the realms of the possible, the undiscovered, the amazing, and the transcendent.

As one final quote, Campbell argues, “... myths offer life models. But the models have to be appropriate to the time in which you are living and our time has changed so fast that what was proper fifty years ago is not proper today....” For Campbell, we need myths relevant to the concerns, philosophies, and aspirations of the modern world. Where are these new myths to be found?

Also, there need to be characters within a story that provide role models. Though ancient myths can be criticized for including personae in explanations of the origin and the workings of nature and the cosmos, such personifications of reality facilitated a psychological resonance between the myth and the human mind. One of the key factors behind the psycho-social power of any narrative is the inclusion of characters within the story; myths, as narratives with characters, possess this inspirational power.

A key concept that Campbell invokes in understanding myths is the “archetype.” An archetype can be defined as “an original pattern or model represented by some image, persona, or symbol.” An archetype is an anchor point of meaning, associated with a recognizable icon. The psychologist Carl Jung, whom Campbell cites in his writings,
understood an archetype as a deep, fundamental, and universal idea within the human mind. Archetypes are primordial units of meaning, basic to the structure of human understanding. For Jung (1964), the human mind experiences and makes sense of the world in terms of archetypes. For Campbell, there are common personae, themes, and narrative structures in myths from across the world. These pervasive units of meaning are archetypes. Archetypal patterns in myths express universal and deep principles in human understanding and our experience of the world.

Introducing a definition of myth in resonance with Campbell: A myth is “a traditional, typically ancient story...that serves as a fundamental type in the worldview of a people, as by explaining aspects of the natural world or delineating the psychology, customs, or ideals of society.” In this sense a myth is a story, involving iconic characters, which expresses fundamental or archetypal beliefs and values within a society or human mindset. A myth is not necessarily either true or false; a myth is what a particular culture or mindset believes is most deeply true and most important and valuable.

Relative to our modern beliefs and values, especially as informed by modern science, we might see ancient myths as having little validity or life value, but that doesn’t mean that we don’t have our own myths (modern in conception), as defined above. The modern world, incorporating various theories of the past, present, and future and the nature of reality, has its grand narratives that express its deepest values and beliefs (Lombardo, 2006b, 2013). We have stories explaining where we have come from and pointing toward where we are going, and we have various archetypal units of meaning and heros who represent key principles and values expressed through these stories. These grand narratives inspire us toward the future (Polak, 1973).

Building upon such considerations, I propose the following set of characteristic features and values of myth.

- Myths are narratives. The narrative resonates with a fundamental mode of understanding in the human mind—a conceptualization of our lives, human society, and the universe in terms of stories—which is to be contrasted with abstract, theoretical, and depersonalized visions of reality. Myths as narratives have deep psychological power.
- Because of their narrative structure, myths present a temporalized vision of reality, involving sequences of events, and at times, connecting past, present, and future. Myths ask the big questions about our reality in time: Where have we come from? Where are we? Where are we going? Things happen within myths; myths describe some significant transformation or direction within reality.
- Myths possess a kind of potential truth value. One could argue that the story as a general form of describing reality has more truth value than an abstract theory or static picture. Reality is events, processes, and interactive forces generating consequences. Moreover, even if a myth may not be literally true, it may capture some fundamental archetypal theme regarding human life.
- Myths contain personifications. Narratives usually contain person-like entities that participate in the action of the story. We identify with some of the characters—
vicariously experience the narrative events through the eyes of the character—but also we are psychologically repelled by other characters, who may be villainous, weak, or corrupted.

- Myths express archetypal themes. To various degrees, myths contain general icons and symbols representing fundamental ideas or principles. Myths penetrate into the deep and most general intuitions and meanings within the human mind.
- Myths are frequently cosmic in scope. Myths attempt to answer expansive questions about reality; myths aspire to apprehend profound truths about life, the universe, and everything. Although myths educate on the nature of reality, as Campbell proposed, myths also revel in the great mysteries of reality and existence, expressing both awe and wonder.
- Myths often postulate fantastical realms and fantastical beings. Expressive of the creative power of human imagination, myths frequently transcend the commonplace and the mundane, exploring the vast and strange possibilities of existence.
- Myths give personal meaning to life. Myths connect the cosmic to the personal. Characters within myths are frequently situated within cosmic settings, and we vicariously experience the universe and feel ourselves engulfed within it through such characters. Myths contextualize our personal lives within the big picture of things.
- Myths have an emotional dimension, engaging human feelings. We fear, we hope, we are thrilled and disappointed in our experience of mythic narratives. The emotional reactions to myths are a significant part of the participatory dimension of myths.
- Myths do not simply describe and explain. Myths are often motivational and inspirational, providing stories that propel us into action and direct us in life.
- Myths often provide ethical guidelines for life. Mythic characters can be either positive ethical exemplars or negative cautionary ones. Myths tell us what to seek and what to avoid. Myths often have a prescriptive dimension, as well as an explanatory dimension.
- Frequently, there is an aesthetic dimension to myths. As works of literature, they possess beauty, rhythm, harmony, color, and grace. Moreover, mythic narratives are often coupled with aesthetic visualizations (art and sculpture). Part of the inspirational force of a myth derives from its beauty.
- Through various rites and rituals, myths provoke personal immersive participation in the acting out of the myth. Invariably, religions that have myths as part of their heritage require participants to act out their key mythic stories as part of their active identification and inclusion within the group.
- Numerous icons, totems, images, symbols, and objects of worship, having deep meaning and significance, are associated with myths. This is part of the sensory-perceptual dimension of myths.
- In summary, stimulating the heart, intellect, imagination, and desire, anchoring personal and social identity, and provoking action and immersive participation, myths generate holistic consciousness. If the myth contains pivotal futurist themes, then it generates holistic future consciousness.
All told, myths effectively tap into fundamental human psychology and give meaning, value, and direction to human life. To various degrees, they express core beliefs and universal themes and draw in the total holistic dimensionality of human consciousness.

The Mythic Dimensions of Science Fiction

Much of science fiction shares with traditional myths all or some of the above features. And, as noted earlier, analogously, although not all science fiction is about the future, the main focus of science fiction, as a distinctive and general feature, has been the future.

The one significant difference between traditional myths and science fiction is that the latter is informed by contemporary belief systems regarding the nature of reality—in particular, what is scientifically plausible—rather than being based on ancient and often supernatural theories of reality.

Contrary to popular misconceptions, ancient myths did offer visions of the future (and not just simply ‘origin” stories) (Lombardo, 2006a). But with the emergence of modern science fiction, the new visions of the future were derived from the European Enlightenment position that through science, technology, and reason the future could be different, and through human effort, better than the past. I should add though that this basic difference between ancient myth and science fiction is only relative rather than absolute. Many science fiction stories combine scientific and mystical-spiritual-supernatural theories of reality and the future (Star Wars and The Matrix for example).

Scientific and techno-rational visions of the future also generated fear and apprehension. Consequently, emerging out the Gothic and Romantic movements, (the philosophical adversaries of Enlightenment positivism), we find frightening “mythic” tales such as Frankenstein—"the modern Prometheus.” Is embracing the scientific vision of reality and the philosophy of technological self-empowerment a good thing? Whether positive and hopeful, or negative and frightening, the stories of modern science fiction, though mythic in form, frequently grapple with the scientific vision of reality and the secular theory of progress.

But aside from this one basic difference between ancient myth and modern science fiction, consider all the following points of similarity:

Science fiction is narrative, temporal, and filled with a distinctive and colorful assortment of characters. One of the key qualities that makes for good science fiction, as exemplified in its most popular writers, such as H. G. Wells, Edgar Rice Burroughs, and Robert Heinlein, is the exciting and engaging nature of its stories and iconic and often bizarre characters.

As literature, science fiction aspires toward aesthetic standards of beauty and literary color and style. The artistic dimension of science fiction (in both art and cinema) in its unique and imaginative fashion, strives for sensory beauty. Moreover, science fiction is
filled with icons, symbols, images, and totems, which include, as illustrative examples, the robot, rocket ship, ray gun, and alien. Science fiction art is filled with these images and icons; for many science fiction fans, the various icons have become almost objects of worship.

As two of its most obvious qualities: science fiction is frequently cosmic, generating wonder and a sense of mystery; and science fiction is populated with fantastical settings and characters. Science fiction continually pushes and stretches the imaginative limits of both these dimensions. In science fiction we explore the immense reaches of the universe. And, guided by imaginative extrapolations of science, mixed together with other forms of intellectual inspiration, science fiction has created the most incredible assortment of strange and amazing creatures and characters within the history of human thought.

Especially in so far as science fiction is about the future, both utopian and dystopian, it is motivational, providing both ideals and preferable visions of the future to aspire to, and warnings and negative scenarios to avoid. Science fiction generates action in its fans and readers, provoking a way of life and life direction. The utopian-dystopian polarity also clearly taps into the ethical dimension, identifying hopeful and good futures and fearful and bad futures. Science fiction gets us to ponder over what is good and what is bad, for it is not always so clear once we step out of the constraints of the commonplace. In contemplating the future, science fiction compels us to question our ethical assumptions.

Science fiction embodies a plethora of archetypes. The genre is filled with universal themes expressing basic units of meaning within the human mind. We find the themes of death and resurrection; the hero’s journey toward enlightenment; the struggle and interweaving of order and chaos; both mother and father figures; good versus evil and war versus peace; ignorance versus enlightenment; and evolution and transcendence. A key question regarding archetypes in science fiction is to what degree they reflect traditional archetypes of early myth, and to what degree the archetypes within science fiction are diversifying and evolving.

What “truth value” can be found in science fiction? Many science fiction writers and commentators have argued that the purpose of science fiction is not to predict the future (Pohl, 1996); historically this argument fails, for predicting the future is exactly what many science fiction writers have attempted to do. Prediction does not have to be exact; rather, a plausible narrative about the future is presented, highlighting certain key developments that the author believes in some manner or form are occurring within the world. The story presents a possible narrative scenario for what may happen in the future if such trends continue. Modern science fiction was kickstarted by both the positive futurist expectations and predictions of the Age of Enlightenment, and the negative and fearful counter-images and anticipations of the future in the Romantic movement.
Also, just as a traditional myth expresses something fundamental about human existence, science fiction can articulate deep truths about human life and the universe. The great science fiction writer Arthur C. Clarke argued that science fiction, more than any other form of literature, grapples with the most basic issues and questions of reality; it penetrates to deep truths, even if the “truth” turns out to be more along the lines of the right questions, rather than the right answers.

In a nutshell, science fiction generates mythic, holistic future consciousness, engaging the intellect, imagination, emotion, motivation, and immersive participation and action. Moreover, science fiction, when it deals with hypothetical futures, works toward further evolving holistic future consciousness, since it both expands our imagination about the future and provokes us into thinking and rethinking our ideas on preferable and non-preferable futures.

*Close Encounters of the Third Kind* is a good example of the mythic shinning through in a science fiction setting. The movie contains the following mythic narrative themes: Beings from a “higher realm” communicate with humans, transmitting a mysterious message and psychically implanting various enigmatic symbols in human consciousness; the human characters are drawn into a challenging journey of adventure and discovery that eventually leads to enlightenment and transcendence; metaphorically, God calls out to humans asking us to follow Him—with a good deal of mystery and faith thrown in—promising cosmic enlightenment and ascension into a celestial realm; at the end of the saga, we see “heaven” (the inside of the resplendent alien spaceship), and gazing upon such magnificent overpowering beauty, we experience awe and wonder.

A second excellent example is *2001: A Space Odyssey*, which, in both the book and the movie, embodies the mythic theme of death and resurrection. Through the use of mysterious monoliths (iconic objects of worship), godlike beings from outer space guide humanity and our technological evolution. Eventually we are lead on a journey to the farther reaches of the universe through a streaming and bedazzling wormhole to observe the accelerated aging and death of the central human character, who is then “resurrected” as a celestial and ethereal Starchild. This, the conclusion hints, will be the next step in human evolution, from physical creatures to ethereal beings of light. Such has been the mythic hope of humanity through the ages—resurrection and “spiritual” rebirth—except in *2001* it is realized through advanced technology, space travel, and hyper-evolved aliens.

In an article in *The Futurist* a number of years ago, “New Myths for a New Millennium,” Stanley Krippner and his co-authors (1998) argued that myths are critical to the human mind and human society and that we need new myths for the future—myths that make sense within a modern mindset and philosophy. Such new myths are the stories of science fiction. In fact, with the emergence of the cinema in the last hundred years, we can create and present our myths in a psychologically holistic, multi-sensory fashion. The power of modern special effects allows us to produce and share highly realistic and immersive simulations of fantastical and futuristic possibilities.
Olaf Stapledon clearly understood the importance of myth in our contemporary times, as well as the deep connection between myth and science fiction. To quote, from his novel *Last and First Men* (1930):

“The activity we are undertaking is not science, but art...Yet our aim is not merely to create aesthetically admirable fiction. We must achieve neither mere history, nor mere fiction, but myth. A true myth is one which, within the universe of a certain culture … expresses richly, and often perhaps tragically, the highest aspirations possible within a culture.”

In summary, science fiction, a continually evolving and highly diverse creation of human minds, is the mythology of the future. Its central focus is the possibilities of the future, encompassing all aspects of the future. Being informed and inspired by contemporary thought, science, and cutting-edge speculation (the ideas and hopes of a culture), it creates myths about the future that will engage, guide, and inspire us in the ongoing creation of the future. Bringing with it the psychologically holistic features of myth, it facilitates the development of holistic future consciousness, engaging all the dimensions of the human mind in imagining, visualizing, feeling, and thinking about the future, as well as acting on it.

**Science Fiction and Futures Studies**

Science fiction and futures studies exist on an interactive continuum of different expressions of future consciousness.

There are many different methods and approaches within the general arena of nonfiction futurist thinking (or futures studies), such as theory building and paradigm creation; trend extrapolation; scenario building; the collective polling and integration of facts and expert opinions; strategic planning; foresight exercises; scanning; probabilistic predictions; mathematical and statistical techniques; imaging preferable futures; causal layer analysis; and wild card scenarios (Bell, 1997, 2002a, 2002b; Marien, 2002a, 2002b). Futures studies is a highly diverse set of practices, principles, and theoretical ideas.

H. G. Wells, who can be seen as the father of both modern science fiction and modern futures studies (Wagar, 2004), embraced both fictional and nonfictional approaches to the future, sometimes weaving the two together, as in *The World Set Free* (1914) and *The Shape of Things to Come* (1933). Though his writings can be roughly divided into science fiction versus futures studies (of fictional narrative versus nonfictional speculation, prediction, and prescription), in his mind, each approach informed the other. He thought out the scientific implications of the theory of evolution as a prelude to writing his classic novels *The Time Machine* (1895) and *The Island of Dr. Moreau* (1896). He studied human history (and wrote books on it) as a prelude to writing the *War of the Worlds* (1898), *The War in the Air* (1908), and *The Sleeper Awakes* (1899/1910).
Since Wells, numerous writers and researchers on the future have explored both science fiction and futures studies, drawing ideas from both domains, cross-fertilizing and synthesizing themes and principles. The futurist Alvin Toffler advocated the teaching of science fiction as a valuable educational exercise for futurist thinking; the science fiction writers Arthur C. Clarke, Isaac Asimov, Frederick Pohl, and David Brin, to name just a few, all have written nonfiction on the future, bringing science fiction into their discussions. Asimov, in his *Foundation* (1982) series, delves into theoretical considerations regarding historical prediction as a grounding for his fictional speculations. Brin presents, in his science fiction novel *Existence* (2012), a superb narrative synthesis of ongoing research in SETI and a fictitious future encounter with aliens. As the science fiction writer Thomas Disch, states, in his book *The Dreams Our Stuff is Made Of* (1998), science fiction has deeply influenced the development of visions of the future and ongoing advances in technology—arguing that “science fiction has conquered the world.” Science fiction permeates futurist thinking and vice versa.

As a prime recent example, it is impossible to disentangle contemporary thinking on the future evolution of computers, the Internet, and artificial intelligence, from the experience of this emerging future as expressed through the writings of cyberpunk science fiction. Cyberpunk is both a sub-genre in science fiction and a subculture and mode of thinking about the future. William Gibson’s seminal cyberpunk novel *Neuromancer* (1984) not only anticipated but helped to create a techno-futurist mindset within contemporary pop culture. Looking at the nonfiction writings of Rudy Rucker in his *Mondo 2000* (Rucker, Sirius, and Queen Mu, 1992) and his amazingly creative, crazy, and pyrotechnical display in his science fiction epic *The Ware Tetralogy* (2010), the ideas and themes from his fiction and nonfiction blend together into a phantasmasagoric vision of the future. Ray Kurzweil’s books *The Age of Spiritual Machines* (1999) and *The Singularity is Near* (2005), though nonfiction and based upon data-driven predictions, often read like pages from science fiction.

To further reinforce the connection between science fiction and futures studies, consider this: Although science fiction tells stories about the future, these stories often embody thought experiments about the future. Science fiction writers think out the details and implications of their speculative ideas on the future—both as a prelude to writing the story and within the actual content of the narrative—to get readers actively thinking about the future. Science fiction writers ask—and raise within the stories—such questions as, “What if?” and “If this goes on, then what?” Science fiction is “idea literature.” It ponders and speculates on the possibilities of the future, forcing the reader to think along with the writer. This is more than simple story telling; it is an exercise in imagination, speculation, critical thinking, hypothesis testing, trend extrapolation, scenario building, and even planning, as it pertains to preferable futures, all of which are aspects of futures studies.

Perhaps the most powerful illustrations of the merging of science fiction and futures studies are Olaf Stapledon’s novels *Last and First Men* (1930) and *Star Maker* (1937). In the opening chapters of the first novel, we find Stapledon analyzing the contemporary
social-political world of the early 1930s; we follow his discourse as he thinks out and predicts where present conditions will lead in the immediate future, and identifies complex causes leading to complex effects. The global analysis and futurist speculations evolve into an ongoing general narrative of further consequent events and transformations, chronicled across millennia. As he describes this ongoing “future history” of humanity, including social, political, environmental, scientific-technological, ethical, psychological, and spiritual developments, thus generating a “future of everything” narrative, he also provides philosophical reflections and evaluations on the flow of events. All in all, he chronicles eighteen successive species of humans and how one species transforms into the next one, over a period of two billion years into the future. Is this science fiction or futures studies? It is both; the distinction of the two approaches is totally blurred.

In *Star Maker*, he adopts a similar philosophically reflective narrative approach, but now he chronicles the future history of the evolution of intelligence and sentient societies across the cosmos. Further breaking down the distinction of fiction and nonfiction, *Star Maker* can be viewed as an ontology and ethics of existence presented in a speculative futurist grand narrative. It is a theory of reality, time, and the good conveyed as a story.

In both *Last and First Men* and *Star Maker*, the general theory of reality that Stapledon applies to both the future of humanity and the cosmos is evolution. In the latter novel, Stapledon applies evolution to God and the nature of creation. Cosmic evolution, a scientific theory of reality that provides a descriptive and explanatory pattern to the flow of time, past, present, and future, is the narrative structure within both novels. *Last and First Men* and *Star Maker* are philosophical and scientific reflections, sequentially chronicling future evolution.

**An Evolutionary Mythology of the Future**

“The future ain’t what it used to be, and it never was.”

*Anonymous*

Bringing to center stage the concept of evolution, on what basis do I define science fiction as the “evolutionary mythology of the future.”

For one thing, science fiction is a continually evolving genre of futurist themes, scenarios, and thought experiments, where new writers build upon the heritage of great works of the past. We could say that science fiction has its own evolutionary history, integrating continuity and change. Thus informed by its evolving heritage of consciousness-expanding possibilities, science fiction involves the ongoing, purposeful evolution of holistic future consciousness.

Also, from early on, science fiction has grappled with understanding the nature of evolution and progress. Both Enlightenment philosophy, with its vision of secular progress, and the Romantic recoil, with its apprehensions over industrial and technological advances, laid the modern seeds of science fiction. Together they express
the double-edged sword of fear and hope regarding human change in the future. The theory of evolution further expanded the vistas and ongoing debates within science fiction over where natural and social change are heading in the future.

The central scientific narrative of contemporary times is cosmic evolution: The universe as a totality, including humanity, is a result of evolutionary processes. Cosmic evolution lays out a “story of us all.” (Watson, 2001, 2005). In the last hundred years, evolution has become an increasingly influential and all-encompassing way of thinking about reality in both science and philosophy (Chaisson, 2005, 2009). We are evolutionary beings living in an evolutionary universe. Moreover, evolution and progress have been woven together in modern philosophy and futurist thinking (Lombardo, 2006a, 2011b, 2012; Kelley, 2010; Phipps, 2012).

In so far as science fiction deals with the scientifically plausible, evolution provides the foundational scientific framework in which science fiction is written. Science fiction writers, since the time of H.G. Wells, if not before, have pondered the meaning and message of evolution as a framework for understanding both the past and the future. In so far as modern science fiction assumes a scientific theory of reality as it is presently articulated, it embraces an evolutionary vision of nature and the universe.

Evolution is, however, a double-edged sword; there is becoming and passing away; emergence and extinction; order and chaos; creation and destruction, all enveloped in a sea of natural law and irreducible uncertainties. These dualities and tensions in the cosmic evolutionary narrative provide a dynamic context for creating drama and adventure within science fiction stories. The risks, uncertainties, potential catastrophes, and varied possibilities within the evolutionary saga give great narrative energy to futurist science fiction. Aside from Wells and Stapledon, science fiction writers such as Camille Flammarion in *Omega: The End of the World* (1893/1894), A.E. van Vogt in *Slan* (1940), Stephen Baxter in *The Time Ships* (1995) and *Evolution* (2003), Greg Bear in *Darwin’s Radio* (1999), Robert Sawyer in *Hominids* (2002), Charles Stross in *Accelerando* (2005), and Robert Silverberg, in his psychedelic trip in human evolution, *Son of Man* (1971), have explored the evolution of the universe and humankind’s evolutionary journey and potentialities within it.

Sampling the ongoing development of visions of the evolution of humanity within science fiction, consider the following three novels: H.G. Wells’ *The Time Machine* (1895), where future humanity is divided between the beautiful, idyllic, and fragile Eloi and the dark, subterranean, and cannibalistic Morlock; Olaf Stapledon’s *Last and First Men* (1931), which stretches two billion years into the future and chronicles the rise and fall of eighteen different species of humans, many of them being intentional and technologically facilitated creations of the previous human species; and lastly, Greg Egan’s *Diaspora* (1997), where human consciousness uploads into both robotic bodies and virtual minds of immense power and intelligence, and goes in search of the riddles of the cosmos through enveloping and ever-ascending multiverses. Across these novels, we find ever evolving visions of humanity’s future as successive generations purposefully incorporate new ideas from science and philosophical thought.
Not only does humanity’s sense of its future possibilities evolve, in these three illustrative novels, the future of humanity is conceived in evolutionary terms. Our future is evolution, and our understanding of this process and its possible trajectories itself is evolving. In Wells’s novel, social stratification and differential environmental adaptation generate human evolution; in Stapledon, environmental adaptation, purposefully applied biological and scientific techniques, and the intentional selection of philosophical and psychological ideals drive evolution; and finally, in Egan’s novel, artificial intelligence, robotic engineering, and the creation of specialized and highly enhanced virtual realities facilitate human evolution. Our consciousness and understanding of evolution, and how it applies to ourselves, is evolving. We are purposefully evolving our evolutionary vision of humanity.

Pulling together these ideas, the mythology of the future created within science fiction is evolutionary because:

- Science fiction has a deep heritage with many roots, tributaries, and branches and a rich historical foundation of ideas and themes. Science fiction did not just “pop into existence” at some narrowly circumscribed point in time, and its present reality is an accumulation of ideas and themes and reflections of a deep past.
- Science fiction continually and self-reflectively builds upon this heritage, drawing from an ever-evolving “think tank” about the future and the nature of reality. Science fiction is dynamic and ever transforming.
- Science fiction, in so far as it is informed by contemporary science, conceptualizes reality, now and into the future, in evolutionary terms. Scientifically informed science fiction sets its scenarios and narratives in an evolutionary universe.
- As a narrative mode of holistic future consciousness, science fiction is a significant developmental expression of the purposeful evolution of evolution. Humans engage in purposeful evolution, throughout history attempting to improve upon their nature and their conditions of existence. Humans continually attempt to “evolve” their minds and capacities, and in so doing, improve their abilities to more effectively and wisely change reality toward desirable ends (Lombardo, 2009, 2014). In regards to this general trend, evolution is self-consciously enhanced and accelerated through science fiction. As a narrative think tank about the future, integrative in scope, science fiction helps to advance our own efforts to evolve ourselves in preferable directions.
- Science fiction, being both self-reflective and a mode of holistic future consciousness, is engaged in the purposeful evolution of holistic future consciousness.

In summary and conclusion, science fiction compels us to feel the future as well as to think about it. Its archetypal, mythic, and cosmic qualities, informed by modern science, technology, and philosophical thinking, provide a medium for the ongoing creation of futurist myths to guide, inspire, and warn us about the multitudinous possibilities of the future—science fiction is about the future for the future.
Science fiction writers have envisioned the evolution of humanity, life, the earth, and the cosmos as a totality—a comprehensive evolutionary future of everything—and these visions continually diversify and evolve. Science fiction is the evolutionary mythology of the future, envisioning our possibilities of future evolution, even as it, too, evolves in the process.

References


Flammarion, Camille *Omega: The End of the World*. Lincoln, Nebraska: University of Nebraska Press, 1894.


