# \*\*\* 1AC

## 1AC—The Overview Effect

Contention \_\_: The Overview Effect

### First, humanity is like a fish trapped in the ocean—only going to space can explode these shackles and open room for fundamental transformation.

Frank White, author of six books about space exploration, founder of the Overview Effect Institute, frequently speaks at conferences about space exploration, holds a B.A. from Harvard College and an M.Phil. from Oxford University, 1987 (“The Explorer Fish,” *The Overview Effect: Space Exploration and Human Evolution*, Published by Houghton Mifflin Company, ISBN 0395430844, p. 6-7)

A fish glides through a liquid world, aware of light and dark, predators and prey, dimly perceiving the ocean bottom below. On occasion, it may leap out of the water and experience “something else” strange and different. That experience, however, is rare and not an essential element of the fish’s life. This is “fish consciousness” — in regard to land, water, air, and sky, the fish’s knowledge of reality is highly conditioned and extremely restricted by its physical surroundings. If you were a fish, you would have **no idea** what land is like and only the vaguest notion of what water is like, because water would be the fundamental medium in which you lived. An idea of “sky” would be far **beyond your comprehension**.

To us, it is a strange and limited life. However, in terms of consciousness and evolution, we are closer to living the life of a fish than we care to realize. Until recently, all human beings have existed in a state **much like that of the fish** and other marine animals. **The planet Earth has been our ocean, from which we have been unable to escape**. Even the remote possibility of leaving the planet became imaginable relatively recently.

As a result, it has been extremely difficult to conceive of life off [end page 6] the planet, and without direct experience, we have been limited to speculation. Scientists and science fiction writers have tried to understand the nature of the physical universe beyond our atmosphere, but their attempts were purely conceptual until 1961, when the first human being actually ventured into space.

Since that brief and historic orbital flight by Yuri Gagarin, about two hundred human beings have experienced this wholly new form of existence: living and working in space. Their nonterrestrial time has been brief — several months on the longest journey. Compared to the time humans have spent on this planet, their time in space is hardly measurable. Nevertheless, the vital importance of their experiences is beginning to emerge.

The evidence suggests that humanity’s expansion into the solar system and beyond will result in a **fundamental transformation** of the human species, an evolutionary step **unprecedented in human history**. To begin the process of understanding why this is so, let’s return to the example of our ancestors, the fish.

### Second, space exploration prevents human extinction and decreases the risk of war—it’s a bigger impact than anything we could imagine on Earth.

Gerard K. O’Neill, President of the Space Studies Institute, Professor Emeritus of Physics at Princeton University where he was one of the world’s most distinguished authors and scientists in the field of space colonization, holds a Ph.D. in Physics from Cornell University, 1987 (Foreword to *The Overview Effect: Space Exploration and Human Evolution* written by Frank White, Published by Houghton Mifflin Company, ISBN 0395430844, p. xiv-xv)

It is the hope of those who work toward the breakout from planet Earth that the establishment of permanent, self-sustaining colonies of humans off-Earth will have three vital consequences. First, it will **make human life forever unkillable**, **removing it from the endangered species list**, where it now stands on a fragile Earth over-armed with nuclear weapons. Second, the opening of **virtually unlimited new land** area in space will **reduce territorial pressures** and therefore **diminish warfare on Earth itself**. Third, the small scale of space colonies, the largest some tens of thousands of people, will lead to local governments that are simple in form, responsive to the desires of their people, and as reachable and intimate as were the New England town meetings of America’s heritage.

Beyond those immediate needs of survival and freedom, we look to our purpose as a species. We are far too diverse, far too contentious, and far too divided by conflicting religious and ideological dogmas ever to be likely to agree on a single long-term goal for humanity. And **we are far too impatient**, too short in our attention spans, to hold to such a goal for a time of many generations. But [end page xiv] fortunately, the realities of time and space in the era when humanity is freed of Earth’s bonds **will lead inevitably to results that will transcend any program we might devise**.

In a relatively short time they will bring **a higher degree of independence to human communities than is now possible on Earth**. In a longer time the effects of genetic drift will show, as human groups separated by great distances evolve into noticeably different forms of humanity. In a much longer time — but a time still short compared to the interval over which Homo sapiens evolved — there will spread throughout our galaxy **a variety of civilizations**, all traceable, though some may forget their origins, to one beautiful and precious planet, circling a minor star near the galaxy’s edge.

### Third, space exploration is a d-rule—it outweighs mere human survival.

Frank White, author of six books about space exploration, founder of the Overview Effect Institute, frequently speaks at conferences about space exploration, holds a B.A. from Harvard College and an M.Phil. from Oxford University, 1987 (“Prologue,” *The Overview Effect: Space Exploration and Human Evolution*, Published by Houghton Mifflin Company, ISBN 0395430844, p. xvii-xviii)

During the forced stand-down in the space program following the accident, many Americans asked themselves, “What is the fundamental purpose of space exploration; what is the vision that guides our space program?” It is appropriate that this debate ensued, because it is part of taking responsibility for what has happened in the past and what can happen in the future in space. In charting our future in space, we are also choosing **our future in general**, because **space exploration is not just another government program**. It may be **a key to human survival and evolution**, and perhaps **even more than that**. [end page xvii]

The thesis of this book is that we are **not** simply reaching out into space to use extraterrestrial resources and opportunities here on Earth. Rather, we are **laying the foundations for a series of new civilizations** that are **the next logical steps** in the evolution of human society and human consciousness.

That in itself should be enough to make us take space exploration seriously and to move ahead vigorously. However, I will also argue that human exploration of space may serve **an even higher purpose** than our own evolution as a species, performing **a vital function for the universe as a whole**.

Seen this way, space exploration is not a luxury to be pursued after other social priorities have been handled. Rather, it is **the most important activity of all**. It is important for everyone, but for Americans in particular, to grasp this point because of our heritage as explorers, innovators, and leaders.

A relevant interchange occurred on the television program “This Week with David Brinkley” shortly after the Challenger accident. At one point, columnist George Will said to author Tom Wolfe, “It seems we have justified space exploration in a very banal way; we have sold it on the basis that it produced nonstick frying pans and so on.”

“Yes,” responded Wolfe. “We have never had a philosophy of space exploration.”

With a new century and a new millennium only a few years away, the time is right for the people of the United States and of planet Earth to develop **a comprehensive philosophy of space**. The purpose of this book is to help begin that process. The goal is to focus on the vision and purpose of space exploration that the old space program sometimes failed to articulate and to show how a new space program can be different.

### Fourth, space exploration is key—only a different physical location makes possible a different worldview.

Frank White, author of six books about space exploration, founder of the Overview Effect Institute, frequently speaks at conferences about space exploration, holds a B.A. from Harvard College and an M.Phil. from Oxford University, 1987 (“The Overview Project,” *The Overview Effect: Space Exploration and Human Evolution*, Published by Houghton Mifflin Company, ISBN 0395430844, p. 3-4)

This line of thought led to a simple but important realization: mental processes and views of life **cannot be separated from physical location**. Our “world view” as a conceptual framework **depends quite literally** on our view of the world from a physical place in the universe. [end page 3]

Later, as the plane flew over the deserts and mountains of the western states, the flood of insights continued. I could look down on the network below and actually “see the future.” I knew that the car on Route 110 would soon meet up with that other car on Route 37, though the two drivers were not yet aware of it. If they were about to have an accident, I would see it, but they wouldn’t.

From the airplane, the message that scientists, philosophers, spiritual teachers, and systems theorists have been trying to tell us for centuries was obvious: **everything is interconnected and interrelated, each part a subsystem of a larger whole system**.

Finally, after I spent several hours looking out at Earth’s surface, all the insights linked into a single gestalt. This is how I expressed it at the time:

People living in space settlements will **always have an overview!** They will be able to see how everything is related, that what appears to be “the world” to people on Earth is merely a small planet in space, and what appears to be “the present” is merely a limited viewpoint to one looking from a higher level. People who live in space will **take for granted** philosophical insights that have taken those on Earth **thousands of years** to formulate. They will start at a place we have labored to attain over **several millennia**.

That moment of realization gave birth to the term “the overview effect,” which meant, at the time, the predicted experience of astronauts and space settlers, who would have **a different philosophical point of view** as a result of having a different physical perspective.

### Finally, this slays their critiques: space exploration is not a technology but a state of mind—vote affirmative to endorse human possibility.

Frank White, author of six books about space exploration, founder of the Overview Effect Institute, frequently speaks at conferences about space exploration, holds a B.A. from Harvard College and an M.Phil. from Oxford University, 1987 (“Creating the Future,” *The Overview Effect: Space Exploration and Human Evolution*, Published by Houghton Mifflin Company, ISBN 0395430844, p. 182-183)

For the prisoners in the cave, **the wider environment had always been there**. Turning around and going up into the light did not **create** that wider environment, but it allowed them to perceive it more fully. Initially they were chained and could not leave to see the new reality. However, once one of their number had made the trek, it became their choice to continue staring into the darkness. “It didn’t help *him* very much,” they would say.

The people in the cave are like the imaginary detractors of the explorer fish, and they are frighteningly like us today. We fail to realize that **we are in space**, that we have **the means to experience it on a vast scale**, and that doing so will **free us from the illusory reality in which we daily indulge**. Instead, we spend our time trying to fit outer space into our current paradigm and criticizing our astronauts for failing to explain the light in terms that the darkness can understand. Unfortunately, this is the perfect prescription for our **continued solitary confinement from the rest of the universe**.

**Going into space is not the point**. Realizing that we are in space and beginning **to deal with the broader implications** is the point. **We are in space and we cannot be anywhere else, ever**. The question is whether our expanded awareness will have a positive impact on social evolution. Seen from this point of view, the issue is whether we are ready to **mature as a species**, look beyond our narrow [end page 182] parochial concerns, and become **true citizens of the universe**.

Realizing that we are in space is mind-expanding, but we hate to admit it because it brings us back up against the issues of awareness and choice today, not in the future. The new civilizations, like the Kingdom of God, are within us.

Ultimately, going to space is **not** about a technological achievement, but about **the human spirit** and **our contribution to universal purpose**. Space, as used in the new space movement, is **a metaphor** for **expansiveness**, **opportunity**, and **freedom**. More than a place or even an experience, it is **a state of mind**. It is a physical, mental, and spiritual dimension in which humanity can move beyond the current equilibrium point, begin to change, and eventually **transform itself into something so extraordinary that we cannot even imagine it.**

Space exploration, in all its forms, should become humanity’s **modern central project**, and the human space program the central project for all five billion of us. The goal should be to get us **out of the cave**, freeing us to see **reality** rather than the **illusions** that persist for a species **chained to a planetary surface**. The choice of becoming citizens of the universe can be rejected, but **humanity can no longer plead ignorance of what is truly possible**.

# \*\*\* Materials To Answer Critiques

## Technology Critique Slayer

### Their critique misses the boat—technology is intrinsic to human social systems. Space exploration is crucial to establish a different system state that remaps the interface between humanity and technology—the Overview Effect internal link turns the critique.

Frank White, author of six books about space exploration, founder of the Overview Effect Institute, frequently speaks at conferences about space exploration, holds a B.A. from Harvard College and an M.Phil. from Oxford University, 1987 (“Overview Systems,” *The Overview Effect: Space Exploration and Human Evolution*, Published by Houghton Mifflin Company, ISBN 0395430844, p. 82-84)

Human systems are among the most sophisticated organizational forms evolved to date for institutionalizing intelligence and conscious self-awareness on Earth. They possess the primary properties of other systems, as well as special properties that make them unique.3 Human social systems, like other systems, evolve. They follow the patterns of equilibrium, change, and transformation and the building up of more complex out of simpler forms. They can also fail to adapt to new situations and become extinct, as the history of past civilizations illustrates.

The **distinguishing property** of human social systems is that they **create and use new technologies as a tool of social evolution**. In fact, a human system can be **defined** as a group of human beings **evolving together as a whole system** and **using technology to do so**.

The word *technology* is derived from the Greek root *technologia*, meaning “systematic treatment.” Technology is a systematic treatment of any problem or endeavor, which means that machines and labor-saving devices are only **one type**. Such physical technologies as automobiles, computers, airplanes, and robots represent one dimension of the technology-creating tendencies of human systems.

For a civilization to arise, a human social system must manage energy effectively. Physical technologies create the means of doing so and lay the foundations for utilizing energy to create information and knowledge. However, while physical technologies provide the basic elements of the process, others are brought to bear to complete the picture.

Mental technologies represent systematic approaches to the problems of everyday life in a human social system. They include such diverse inventions as legal systems (a technology designed to maintain social order), psychotherapies (a technology designed to enhance the functioning of individual human systems), and economies (a technology designed to regulate transfers of goods and services). They are bodies of knowledge built up over long periods of time, so all-pervasive that we hardly notice how they, like physical [end page 82] technologies, **constantly change to meet new demands and needs**. However, they must change in order to remain relevant and useful and for societies to evolve.

The creation of spiritual technologies is an effort to maintain and sustain a link to the spiritual experience of the universe, generating a relationship with an ultimate oneness, “the Universe,” or “System of Systems.” These often show up in society as organized religions and religious practices, which are only the “exoteric” or public aspect of spiritual technologies. Throughout human history, there has also existed a more private or “esoteric” tradition that is less well known.

Because purpose is an essential integrating component of social systems, spiritual technologies play a vital role in defining human purpose and feeding values, norms, and beliefs into the domain of mental technologies for everyday use, while also balancing the often traumatic impact of physical technologies on societies.4

At various times in history, different technologies have been the primary drivers of social evolution. The advent of Christianity during the Roman Empire had tremendous impact as a spiritual technology. The empire’s efforts to integrate the new information represented by Christian thought into its existing mental technologies failed, helping to bring down a civilization that great armies had been unable to defeat. Today, physical technologies appear to be the driving force of social evolution on Earth. Rapid developments in the domain of physical technologies are triggering fundamental transformations in the area of mental technologies and generating a compensatory response in the spiritual domain.

Physical technologies are altering the environment in which all systems on the planet exist, thereby supporting both adaptation and evolution. As the environment is altered, radically new information is fed into most systems on Earth, causing some to move into higher system states and evolve while others fail to adapt and instead devolve. If human systems reacted only to pressures from the environment, they would probably become erratic and highly unstable, because the outside pressures are changing all the time.

In fact, the evolutionary direction of a system is guided by elements inherent in the system as well as influences from the environment. In a living system, the information in a species’ gene [end page 83] pool constitutes one element of its internal distinguishing properties. In a human social system, the inner drive is found at the interface between the physical, mental, and spiritual domains.

Here, the system defines its own **fundamental “view of the world”** as a combination of **physical, mental, and spiritual knowledge**, and this is where the success or failure of a social system is determined. What happens at this “human technologies interface” is far more **important** than might be imagined, because it is **here** that value systems are formed as the foundation of a culture’s unique sense of vision and purpose.

Where vision and purpose are lacking, the interface becomes **unstable**, and the system **loses energy in trying to define itself**. Managers of the system spend their time **tinkering with subsystems and feedback loops** when the problem is with **the value system at the interface among them all.**

A human social system holding to the same ideas for too long will experience itself as being **stuck**, or stagnant, and can remain in that state only briefly. It must then either go into a decline or produce events and opportunities designed to call forth a sense of **vision and purpose**, moving it into **a different system state**. These situations are often perceived as a crisis, but they are equally **an opportunity**, and **they often result from exploration**.

These “metaideas” and “metaexperiences” may be much grander and more comprehensive than any that went before, or they may be fundamental challenges to the system’s continued existence. In any event, the social system must rearrange itself, or transform, to take in the new idea or meet the challenge.

The Overview Effect, seeing and feeling the unity of the Earth, is a **metaexperience**. The whole Earth symbol is a metaidea based on that experience. The multiplicity of human systems on Earth cannot absorb these ideas and experiences without going through **a fundamental transformation**. Physical, mental, and spiritual exploration of **all kinds** functions as **an ongoing generator of metaideas and metaexperiences**, **restoring vision and purpose to a social system**, thereby **supporting its evolution**.

## Eco-Management Critique Slayer

### The Overview Effect is crucial to planetary management, but not in the way that their authors indict—going to space shifts the paradigm of planetary stewardship.

Frank White, author of six books about space exploration, founder of the Overview Effect Institute, frequently speaks at conferences about space exploration, holds a B.A. from Harvard College and an M.Phil. from Oxford University, 1987 (“Disseminating the Overview,” *The Overview Effect: Space Exploration and Human Evolution*, Published by Houghton Mifflin Company, ISBN 0395430844, p. 75)

Many messages may be read into the view of the Earth from space. One is planetary management, the recognition that if the whole can be perceived, the whole can be the focus of practical as well as abstract interest. However, it should be clearly understood that **planetary management does not mean planetary manipulation**. Planetary management should be seen from a stewardship perspective and as participatory management at the highest level.

The clear message of the Overview Effect is that the Earth is **a whole system** and humanity one of **many interdependent species** calling the planet home. A regard for **all life as sacred** becomes a practical as well as moral position when we see **the critical role that all life plays in maintaining the system**.

If the next step in human social evolution is to build a planetary civilization, then what is **most needed** is the ability to see and deal with problems and opportunities **on a planetary level**. It is also the ability not only to **observe**, but **truly communicate with**, **the planet as a whole**. This message is implicit in the whole Earth symbol itself.

## The Case Is A Prerequisite To The Alternative

### Space exploration is a prerequisite to the alternative—the Overview Effect builds evolutionary energy and sparks revolutionary change.

Frank White, author of six books about space exploration, founder of the Overview Effect Institute, frequently speaks at conferences about space exploration, holds a B.A. from Harvard College and an M.Phil. from Oxford University, 1987 (“Overview Systems,” *The Overview Effect: Space Exploration and Human Evolution*, Published by Houghton Mifflin Company, ISBN 0395430844, p. 85)

Exploration is a movement outward into a larger whole system, feeding off the richer information content of that system and pumping it back into the subsystem as **evolutionary energy**. Looking back at evolution on Earth, we find a continuing process of exploration since the first water creatures began to explore land.

Seeing these connections between exploration and evolution offers humanity something **new and unprecedented**, a method for **shaping human evolution** in ways not previously suspected. Space exploration is **the ultimate journey from part to whole**, one which is for all intents and purposes **endless**. Since the Overview Effect and other shifts in consciousness resulting from space exploration are metaexperiences, and a society must transform itself to incorporate them, a society firmly committed to space exploration would find it **difficult to stagnate**.

Ultimately, planning the space program is equivalent to **planning the evolution of human society**, an opportunity of **revolutionary importance**. Realizing the fundamental role of space exploration in shaping social evolution is a major step forward in understanding the importance of astronauts’ experiences in space. Their descriptions are the beginning of the construction of the metamessages that lead to social transformation. However, there is potentially much more involved than human social evolution alone.

## Our Discourse Is Valuable

### Our defense of space exploration plays an important role in the diffusion process—even if none of us ever go to space, our case is a valuable contribution to the dissemination of the Overview Effect.

Frank White, author of six books about space exploration, founder of the Overview Effect Institute, frequently speaks at conferences about space exploration, holds a B.A. from Harvard College and an M.Phil. from Oxford University, 1987 (“Disseminating the Overview,” *The Overview Effect: Space Exploration and Human Evolution*, Published by Houghton Mifflin Company, ISBN 0395430844, p. 68-73)

Still, it **may not be necessary** for an entire society to feel the full impact for a shift in consciousness to take place. The astronauts and cosmonauts are representatives of the species, and in them we have the most powerful experiences of spaceflight being felt by a tiny sample of the whole population. The impact of their communication may seem insignificant—as Skylab astronaut Ed Gibson said, their talking about it is like a “drop of dye in the ocean,” but the diffusion of dye into a liquid changes its composition and color. Their messages to us may work similarly to **change our perspective over time**.

In fact, diffusion is a good way to understand how new ideas are disseminated into societies. Communication researchers have noticed that there is a familiar pattern by which new ideas or practices are adopted by society as a whole. The pattern applies in the same way to issues ranging from the adoption of the smoking habit to the abolition of slavery.

According to this “diffusion of innovation” theory, people fall into five basic groups in terms of adopting new ideas or practices. The percentages of the population they represent are innovators (2.5); early adopters (13.5); early majority (34); late majority (34); and late adopters (16).

New information coming into a human social system from the environment is processed in a sequence, starting with the innovators and concluding with the late adopters. Not everyone deals with new ideas the same way, and everyone does not adopt them immediately.

The innovators are the first to take up the new idea; they then pass it on to the early adopters. Once these two groups make an idea their own, it is on its way to becoming a part of mainstream [end page 69] thought. No one, including innovators, takes on something unknown right away, skipping straight to the adoption or confirmation stages of the process. They have to hear about it, become interested in it, evaluate it, try it, then adopt it and confirm its value.

The adoption curve rises slowly in the beginning, when the innovators and early adopters are going through the process, accelerates rapidly until about half the population has adopted, and increases at a slower rate while the later adopters come aboard. When about 20 percent of the population has taken up the innovation, the curve becomes virtually unstoppable.3

The most important audiences are the innovators, early adopters, and early majority, since their absorption of the message brings it to “takeoff” stage.

The astronauts are the superinnovators of the space age. Other innovators are those involved in national space programs, space interest groups, and other pro-space activities. The early adopters and early majority are just beginning to emerge in regard to the Overview Effect and other ideas discussed here.

It is through this diffusion process that the experience of spaceflight is translated into an idea that has a powerful effect on society as more and more people are reached by it. Just as people who had never seen a slave could become adherents of the abolitionist cause, so can those who have never been in space support a vigorous space exploration program.

Hearing an astronaut speak, seeing a film, or looking at a poster of the whole Earth begins the adoption process by bringing awareness of the overview to the audience. These experiences are not as deep as being in space, but the impact is broader because a film or poster can be replicated more easily and less expensively than the experience itself.

In certain instances, people who are made aware of the overview go through transformations just as powerful as those of the astronauts and in unpredictable ways. I call people who have achieved astronaut awareness without going into space Terranauts. Consider the case of Ray Bright, the inventor of “bioflight,” an approach to gymnastics, space travel, and life itself based on an understanding of what it means to live in a three-dimensional reality. In 1979, Bright was working as a gymnastics instructor at Chico State College [end page 70] in California. He had the insight that whenever we jump into the air, even just a food off the ground, we are *flying*—if we see it that way. With the right attitude, and a little more equipment, such as a trampoline, we can fly even better. In space, well…

Bright had already worked out many of the basic ideas behind bioflight, but the way the final piece fell into place is an excellent example of dissemination of the Overview Effect.

An article in *Air & Space* magazine states,

He [Bright] describes the experience as akin to satori, the Zen state of enlightenment. “I was looking at the famous NASA photo of the Earth floating in space. It’d been made into the front of a greeting card, and the word ‘Home’ was printed on the part of the photo that was just black space. Of course, the idea was that ‘Home’ meant Earth—but suddenly, I saw *space* as home, because in space, everything I’d been trying to do my whole life in terms of movement would be possible. In space, gymnastics wouldn’t be gymnastics—it would be flight. Human flight. Ultimate flight. Bioflight.”4

Bright’s approach is used not only to teach people basic gymnastic techniques, but it is also being considered as a potentially useful training method and space sickness prevention technique for astronauts before they go into space.5

Martin Rutte, a management consultant in Toronto, is another Terranaut. He tells of the transformation that he experienced on hearing a talk by Edgar Mitchell.

There were about two or three thousand people there, and he was standing alone on the stage … Behind him, on a rear-view projector, was the picture he saw coming back from the moon, of the Earth with black all around it. He spoke about his experience of seeing that, and I was riveted on the picture. When he talked about coming back and what it was like to look at that and how it altered his life forever, that he saw that we were one planet and we were one universe—there was one instant when it went “click” and I just got it. I knew exactly what he was talking about. I think it was the first time I had that kind of global consciousness directly.6

According to Rutte, the insight penetrated deep and continues to influence his work as a consultant to corporate executives seeking to define a vision and purpose for their organizations. [end page 71]

He later commented on my article “Space Exploration and Human Evolution,” “It was all there and I knew exactly what you were talking about. It was just ‘bang,’ an explosion in me.”7

Now he is integrating the ideas of the Overview Effect, the Copernican Perspective, and the Universal Insight into the training he conducts with his clients. Once again we see how the insights that had been the exclusive property of astronauts and cosmonauts begin to diffuse into society as a whole.8

I also told Gary Enersen, a management consultant in San Francisco, about my work on the Overview Effect, how my initial awareness of it had emerged during a cross-country flight. Enersen said that he had had a similar awakening and later sent me the notes he had written after his experiences and a description of a personal meditation exercise based on the Overview Effect that he had developed.

Enersen’s notes from his cross-country flight reveal an experience much like my own.

In the “supernatural” look at our life and our Earth, one of the greatest feelings we can get is to fly on a commercial jet plane. The view in the window is to look at perennial clear skies — always so at the horizon level and above, regardless of what may be happening below…

We are able to view from the “upper level” of the world beneath us in the more true perspective than when on land, which is merely our customary lower level. Neither is this the “higher” level, which the astronauts see during orbit, or farther away during moon travel.

This “commercial upper level” is the one we can relate to most easily because it is not too high to lose our *normal* perspective, yet it’s high enough to regain proper perspective about “our land of toil” in relation to the universe.

Enersen has found that he is better able to help clients make bolder plans and take more confident action on a range of practical subjects having nothing to do with space as a result of acting from a higher-level perspective shift.

These examples suggest that while it is not possible to fully replicate the Overview Effect without going into space, **similar experiences are available to us all**. They can then be used as foundations for personal growth and transformation. That idea is being [end page 72] taken up in various quarters. In California, for example, a group is working on several space habitation projects, including a theme park that will provide visitors with a version of the spaceflight experience.

# \*\*\* Additional Materials

## Space Exploration Prevents War

### Space exploration prevents nuclear war by rechanneling human aggression.

Frank White, author of six books about space exploration, founder of the Overview Effect Institute, frequently speaks at conferences about space exploration, holds a B.A. from Harvard College and an M.Phil. from Oxford University, 1987 (“An Overview of the New Civilizations,” *The Overview Effect: Space Exploration and Human Evolution*, Published by Houghton Mifflin Company, ISBN 0395430844, p. 126)

That human beings will want to go into space appears to be a near certainty. It is going to happen, and the issues revolve around clarity of vision and objectives. At the same time, many are concerned that if we do not get into space soon, a catastrophic event, such as a nuclear war, will set back civilization and the space exploration effort irretrievably.

War and space exploration are **alternative uses** of the assertive, exploratory energies that are so characteristic of human beings. They may also be **mutually exclusive** because if one occurs on a massive scale, the other probably will not. A nuclear war will either lead to the extinction of the human species or set civilization back so far that it will take millions of years to achieve spaceflight again. On the other hand, a major commitment to achieving humanity’s purpose through a human space program could result in **the rechanneling of the aggressive human energies necessary to avoid nuclear confrontation**.

### Space exploration cements peace by overcoming difference—the Overview Effect is key.

Giuseppe G. Reibaldi, Analyst at the European Space Agency, Visiting Professor of Space Policy at the Aerospace School of the University ‘La Sapienza’ Rome, 1995 (“Contributions of Space Activities to Peace,” *Ad Astronautica*, Volume 35, Number 8, Available Online to Subscribing Institutions via ScienceDirect, p. 556)

The Earth’s fragility in the darkness of space has been a powerful experience, not only for the astronauts themselves, but also for the rest of the public’s opinion. This vision has stimulated the sense of belonging to the same planet without any division and the need of sharing the responsibility to preserve it, since it is the only one that we have. This is what is called the “Overview Effect” [12]. This effect should be at the basis of a new planetary social contract that should overcome all differences existing between the different regimes on Earth for the good of mankind. The planetary social contract would be a logical extension, to the Earth’s dimension, of the original Locke’s social contract which was aiming to derive civil society from the consent of its member. This educational and ethical element derived by space activities, will be important for the spread of peace since it could be a base on which new generations could grow and overcome their differences. Planning for space activities common to all mankind will stimulate further friendship between all the countries on Earth as well as being a major cultural challenge. This will contribute to spread peace, as Bertrand Russell said: “If the world is ever to have peace, it must find ways of combining peace with the possibility of adventures that are not destructive”[13].

## Framing: Accesses Every Major Impact

### Planetary awareness is the critical internal link to every large-scale impact.

The Overview Institute—a project of the Space Frontier Foundation, 2008 (“The Overview Institute: Declaration of Vision and Principles,” Published by the Overview Institute, Available Online at http://www.overviewinstitute.org/declaration.htm, Accessed 06-26-2011)

We live at a critical moment in human history. The challenges of climate change, food, water and energy shortages as well as the increasing disparity between the developed and developing nations are testing our will to unite, while differences in religions, cultures, and politics continue to keep us apart. The creation of a “global village” through satellite TV and the Internet is still struggling to connect the world into one community. At this critical moment, our greatest need is for a global vision of planetary unity and purpose for humanity as a whole.

## Framing: Long-Term Outweighs Short-Term

### Their “timeframe” arguments beg the question of perspective—addressing long-term existential threats is a moral imperative.

Frank White, author of six books about space exploration, founder of the Overview Effect Institute, frequently speaks at conferences about space exploration, holds a B.A. from Harvard College and an M.Phil. from Oxford University, 1987 (“An Overview of the New Civilizations,” *The Overview Effect: Space Exploration and Human Evolution*, Published by Houghton Mifflin Company, ISBN 0395430844, p. 125)

Moreover, the time frames involved are **enormous**. Our sun will become a red giant in eight billion years, ending the life of the solar system as we know it. While eight billion years seems an unbelievably long time, about five billion years has elapsed between the creation of Earth as a physical system and the present, when we can see an emerging planetary overview system. Eight billion years is a long time **only in terms of the types of activities we are accustomed to analyzing**. In the universe, it is **a moment**. This also means that **specific actions taken today** will have **significant ramifications over a long period**. At a time when the human species has created the means to **destroy itself and most of life on Earth**, it is **a moral imperative** that our work address itself to what will happen and to the question of how we can turn events in a positive direction.

## They Say: “Staffed Space Flight Is Key”

### It’s not just staffed spaceflight—unstaffed observation like the plan helps shift humanity’s perspective.

Frank White, author of six books about space exploration, founder of the Overview Effect Institute, frequently speaks at conferences about space exploration, holds a B.A. from Harvard College and an M.Phil. from Oxford University, 1987 (“The Technological Overview,” *The Overview Effect: Space Exploration and Human Evolution*, Published by Houghton Mifflin Company, ISBN 0395430844, p. 58-59)

Marshall McLuhan said that the medium is the message and our technologies are extensions of ourselves. By that, he meant that the structure of communications media is itself a message to society and that technologies emulate our organic sensing capabilities. Permanent technological analogues of the human experience are being established in space, **extending our sensing capabilities** into the solar system and beyond. These technologies also tell us that **increasingly more sophisticated overviews** are **available on a permanent basis**.

Like “manned” space exploration, “unmanned” exploration includes a spectrum of possible experiences and a resulting range of effects on human consciousness and social evolution.

To grasp the variety of experiences and uses of unmanned systems, the flights can be categorized as were the manned flights: (1) flights that allow us to look back at the Earth; (2) flights that allow us to explore the solar system; and (3) flights that allow us to look out into the universe.

In general, the flights that allow us to look back at the earth or communicate from point to point on the Earth reinforce the Overview Effect. These include satellites in Low Earth Orbit and in Geosynchronous Orbit.

Flights that help us to understand the solar system and our place in it coincide with the Copernican Perspective. These include probes that orbit other planets or satellites, probes that “flyby” other planets or satellites, and those that land on other planets or satellites.

Flights that help us better understand the universe as a whole, to achieve Universal Insight, consist primarily of telescopes and other monitoring devices placed in Earth orbit, with their “eyes and ears” pointed outward.

### Observation in space enables humanity to gain the Universal Insight.

Frank White, author of six books about space exploration, founder of the Overview Effect Institute, frequently speaks at conferences about space exploration, holds a B.A. from Harvard College and an M.Phil. from Oxford University, 1987 (“The Technological Overview,” *The Overview Effect: Space Exploration and Human Evolution*, Published by Houghton Mifflin Company, ISBN 0395430844, p. 66)

The Universal Insight is a recognition not only that the Earth is a whole system and a part of the solar system, but that we are also part of the universe and have an important role to play in it. Astronomers, by the nature of their profession, have always known about the Universal Insight. Today, **the technological analogue of that insight** is being **extended** by astronomers working to **lift our observational tools into space**. It has been proposed that a series of “great observatories,” designed to generate new information about the universe as a whole and the human place within it, be constructed in Earth orbit over the next few decades.12

### Both staffed and unstaffed approaches solve.

Frank White, author of six books about space exploration, founder of the Overview Effect Institute, frequently speaks at conferences about space exploration, holds a B.A. from Harvard College and an M.Phil. from Oxford University, 1987 (“The Technological Overview,” *The Overview Effect: Space Exploration and Human Evolution*, Published by Houghton Mifflin Company, ISBN 0395430844, p. 66-67)

For many years, a debate has raged within the space community over the relative value of manned versus unmanned exploration of space. **Both approaches have positive impact on human consciousness and social evolution**, as this and previous chapters have shown.

Responding to ideas in this chapter, Dr. Paul Blanchard, a consultant to NASA who helped develop the report of the Earth System Sciences Committee, pointed out some important facts about the relationship between manned and unmanned exploration. Speaking of explorers and discoverers of the past, he said,

In those times, discovery *had* to be undertaken by human beings. There was no way to automate discovery. One of the problems under the surface here is that for the first time in history, we are able to mount very extensive and revealing voyages of discovery with no human participants, thus removing the necessity of having a leader or hero.14

I suggested to Blanchard that the primary reason for humans’ going into space was its positive impact on human consciousness. He agreed and said that in terms of manned space exploration, it would tell us more about ourselves than about space.

Ultimately, manned and unmanned programs must be seen **not as competing priorities**, but as **critical elements of the same process**. **Both** are forms of exploration that teach us about space and ourselves. For this reason, it seems fair to say that **the farther out human beings look, the further inward we see**.

## They Say: “No Evidence Supports Theory”

### The experience of astronauts confirms our thesis—the Overview Effect promotes ecological awareness and peace.

Frank White, author of six books about space exploration, founder of the Overview Effect Institute, frequently speaks at conferences about space exploration, holds a B.A. from Harvard College and an M.Phil. from Oxford University, 1987 (“Disseminating the Overview,” *The Overview Effect: Space Exploration and Human Evolution*, Published by Houghton Mifflin Company, ISBN 0395430844, p. 73)

If the idea of the Overview Effect as a message is correct, it should be possible to see the overview experience being disseminated in support of a more peaceful, self-aware, and ecologically careful species. The link between that kind of social transformation and space exploration remains circumstantial, but there is good evidence that it exists. For example, many astronauts return from space with an intense interest in ecology. From space, it is easy for them to see the fragility and interdependence of Earth’s environment and the cost to humanity if anything is done to make the planet unlivable.

### Astronaut testimony confirms the Overview Effect is real.

The Overview Institute—a project of the Space Frontier Foundation, 2008 (“The Overview Institute: Declaration of Vision and Principles,” Published by the Overview Institute, Available Online at http://www.overviewinstitute.org/declaration.htm, Accessed 06-26-2011)

For more than four decades, astronauts from many cultures and backgrounds have been telling us that, from the perspective of Earth orbit and the Moon, they have gained such a vision. There is even a common term for this experience: “The Overview Effect,” a phrase coined in the book of the same name by space philosopher and writer Frank White. It refers to the experience of seeing firsthand the reality of the Earth in space, which is immediately understood to be a tiny, fragile ball of life, hanging in the void, shielded and nourished by a paper-thin atmosphere. From space, the astronauts tell us, national boundaries vanish, the conflicts that divide us become less important and the need to create a planetary society with the united will to protect this “pale blue dot” becomes both obvious and imperative. Even more so, many of them tell us that from the Overview perspective, all of this seems imminently achievable, if only more people could have the experience!

# \*\*\* Responses To The Overview Effect

## Thesis Level Attacks

### The thesis of their argument is empirically denied—we’ve seen the view from space but we’re not singing Kum Bah Yah.

Jun Okushi, Space Architect who has worked with NASA on projects relating to the International Space Station, Founder at Supra-Systems, Director at OPS-Alaska Japanese Operations, Director at SpaceProjectsGroup/OkushiArchitects, holds an M.Arch in Space Habitation from the Southern California Institute of Architecture, and Marilyn Dudley-Flores, Head of the School of Social Sciences at Atenisi University, worked as a Field Research Social Scientist in the Human Terrain System for the U.S. Army, CEO and Chief Research Scientist with OPS-Alaska, holds a Ph.D. in Sociology from the University of South Carolina-Columbia, 2007 (“Space and Perceptions of Space in Spacecraft: An Astrosociological Perspective,” Paper Presented to the American Institute of Aeronautics and Astronautics Space Conference & Exposition, Available Online at http://www.astrosociology.com/Library/PDF/Contributions/Space%202007%20Articles/Space%20and%20Perceptions.pdf, Accessed 06-26-2011, p. 3)

The average human being has not experienced the view from space on a personal basis, although these pictures from space have been around for upwards to 40 years. Subsequent years have brought more space missions, both human and robotic, with fabulous imagery. Robotically, we have stood on the ground on Mars, we have seen up close mighty impacts on Jupiter, the rings of Saturn, and towering dune fields on Titan. We have even seen the great columns of hydrogen clouds spanning light years that are the incubation places of stars and looked back in time toward the very birth of the Cosmos. Why haven’t the peoples of the Earth been subsumed by this overwhelming experience of viewing things in space and the world from the space? Why haven’t they beaten their swords into plow shares, held hands and sang Kum Bah Yah, and turned their attention to turning the tide against global warming, a fairly immediate threat as time is kept over generations that can kill more people than all of the wars of the Earth put together?

### White is wrong—the Overview Effect is wishful thinking without supporting evidence.

Sally Morem, writer and activist, President of Humanists of Minnesota, 2009 (Review of *The Overview Effect* by Frank White, *Helium*, May 19th, Available Online at http://www.helium.com/items/1454378-book-review-the-overview-effect-by-frank-white, Accessed 06-26-2011)

Up to this point, White succeeds in making clear to the reader how the astronauts and cosmonauts responded to spaceflight and communicated their experiences to the rest of us. But, he fails to make a strong case for his philosophy of space based on these experiences.

He reminds us again and again how amazed the astronauts were when they saw no boundary lines on the surface as they viewed Earth from orbit. Surely, every one of those men realized that Earth would not look like a Rand McNally school globe from space. Obviously, the excitement of the moment overwhelmed their critical facilities.

It isn't necessary to orbit Earth to make this discovery. All a Minnesotan has to do is drive south from the Twin Cities to Iowa on I-35. Look ma, no boundaries!

Yet, White accepts the astronauts' reactions wholly and uncritically, and uses them to project future human civilizations by showing humans somehow rising above provincial nationalism. An Earth without boundaries is presumed to be without political division - a very debatable proposition.

White asserts that a civilization he calls Terra must be developed on this planet before humans can build space civilizations. Unfortunately, this would take a very long time considering the political and technological differences that exist in the world today.

According to White, when Terra is complete, our descendants will build Solaria, a Solar System civilization. And their descendants and extraterrestrials will one day build Galaxia throughout the Milky Way. Actually, it's more likely that humans will be living all over the Solar System before humans on Earth would consider themselves citizens of a one-world society. We would probably achieve world government long after we no longer needed it.

The interior development of these civilizations and the development of an Overview attitude toward the universe as a whole comprise the true purpose of human existence. This is White's philosophy of space.

It is important to keep these things in perspective. Terra, Solaria, and Galaxia are merely human abstractions of projected future human (and alien) communities. As such, they can't give us a solid foundation for a philosophy of space. We would merely be projecting a wish onto the universe based on other wishes.

Nor is clear thinking aided in such a difficult subject by White's use of language, which edges dangerously close to what might be called "California Trendy." "Rising state of consciousness." "Expanding consciousness." "Changing your consciousness." Enough. I can smell the incense already.

A firmer basis for a philosophy of space must await the hard work of historians, sociologists, psychologists, political scientists, and - yes - philosophers. They, along with the physical scientists and engineers already working on the space program, will build this philosophy of space out of the raw materials of what we know and out of what space settlers learn. Human experience, human needs, human desires, human vocation, and human drives will fill a philosophy of space with real content. And, unfortunately for White's dreams for Galaxia, until we meet actual aliens, we are strictly limited to our own very human, very parochial viewpoint - Overview or not.

### The Overview Effect is not supported by scientifically rigorous evidence.

William Sims Bainbridge, Co-Director of Human-Centered Computing at the National Science Foundation, has served as a tenured Professor in the Department of Sociology at the University of Washington, Illinois State University, and Towson University, holds a Ph.D. in Sociology from Harvard University, 2006 (*Goals In Space: American Values and the Future of Technology*, Electronic Version of a book originally published in 1991, Available Online at http://mysite.verizon.net/wsbainbridge/system/goals.pdf, Accessed 06-26-2011, p. 83)

Several of the Idealistic goals assert that space travel gives a new perspective to the astronauts who look back at Earth from afar and to those Earth-bound enthusiasts who participate vicariously in voyages beyond our world. From the viewpoint of space, we see ourselves, our nations, and our planet in a new light. In a recent book, Frank White (1987) reports that astronauts commonly experience “the overview effect,” a radical shift in consciousness achieved by seeing the Earth as a unity and from outside the traditional limits of human experience. He documents this thesis with material from a number of interviews, but unfortunately his data collection and theoretical analysis **were not conducted in a manner that social scientists would consider systematic**. Furthermore, although White considers “consciousness” to be the essential ingredient of any culture, **he does not draw upon any of the standard literature** on this conceptually slippery topic. Yet, his hypothesis that from the new world-view offered by space exploration will come a series of new civilizations is a stimulating expression of the basic faith of the Idealistic class.

## The Status Quo Solves

### The status quo solves—

### A. Commercial space flights.

The Overview Institute—a project of the Space Frontier Foundation, 2008 (“The Overview Institute: Declaration of Vision and Principles,” Published by the Overview Institute, Available Online at http://www.overviewinstitute.org/declaration.htm, Accessed 06-26-2011)

Two recent advances are about to dramatically change this limitation. The first is the advent of a commercial space industry that will soon begin taking tens of thousands of people into the near-space environment, far enough to grasp some aspects of the Overview Effect. Zero-gravity flights will make this effect of space travel available to many more. This is only the beginning of the historic human evolution into space, and the resulting transformations of human culture and consciousness as we become a space-faring culture.

### B. Virtual reality.

The Overview Institute—a project of the Space Frontier Foundation, 2008 (“The Overview Institute: Declaration of Vision and Principles,” Published by the Overview Institute, Available Online at http://www.overviewinstitute.org/declaration.htm, Accessed 06-26-2011)

The second major advance is the rapid maturation of high-definition digital media, from the internet-connected desktop to three-dimensional simulation media and virtual reality. These new technologies, together with other forms of art, media, entertainment and education will soon provide new and more powerful tools to immerse Earthbound audiences in a close approximation of the space environment and potentially bring the Overview Effect to many millions around the globe.

### The status quo solves—maturing information technologies will bring the space experience to us in virtual reality.

Jun Okushi, Space Architect who has worked with NASA on projects relating to the International Space Station, Founder at Supra-Systems, Director at OPS-Alaska Japanese Operations, Director at SpaceProjectsGroup/OkushiArchitects, holds an M.Arch in Space Habitation from the Southern California Institute of Architecture, and Marilyn Dudley-Flores, Head of the School of Social Sciences at Atenisi University, worked as a Field Research Social Scientist in the Human Terrain System for the U.S. Army, CEO and Chief Research Scientist with OPS-Alaska, holds a Ph.D. in Sociology from the University of South Carolina-Columbia, 2007 (“Space and Perceptions of Space in Spacecraft: An Astrosociological Perspective,” Paper Presented to the American Institute of Aeronautics and Astronautics Space Conference & Exposition, Available Online at http://www.astrosociology.com/Library/PDF/Contributions/Space%202007%20Articles/Space%20and%20Perceptions.pdf, Accessed 06-26-2011, p. 4-5)

Can space-based information transfer systems (SBITS) develop in an ever-increasingly Internet-connected global audience a planetary consciousness? The authors think that it is likely. In terms of reaching large volumes of people, permutations of web-based SBITS encounters and virtual reality-actual imagery, audio, and other feed combinations have a better chance of instilling such a global group state within the next several years than the tiny growing cadre of space tourists and entrepreneur-astronauts in the same period of time. As Thomas Gangale has pointed out, in disabusing the computer applications technologist’s space development expectations with astronautical fact, “…there is no astronautical analogue to Moore’s Law (Dudley-Flores and Gangale 2007).”10

NASA appears to have recently come to understand the utility of a virtual reality-actual feed combination. The head of NASA-Ames Research Center, Simon “Pete” Worden, has partnered with Silicon Valley talent to produce an online 3-D virtual world called “Second Life.” The game allows Internet-connected participants to create avatars of themselves in the virtual world. Worden told an audience at the National Space Society meeting in Dallas, Texas [end page 5] in May 2007 that “Real data from real missions such as the International Space Station can be ported into virtual environments.” Worden described that by matching the attributes of cyberspace with small, inexpensive space probes using micro-satellite technologies, a new world of space exploration was feasible. He told his NSS audience that when the next people step on the Moon and expand into and settle the solar system that all could go along through their avatars in such games. “The revolution in nanotechnology means we can do pretty surprising things in very small packages,” Worden said.§§§

It is a matter of time before these technologies mature, some faster than others, and a web-based system will distribute through diverse user interfaces across cultures the experience of space on Earth. This may be accomplished through games, mobile technologies and architecture, and educational interfaces. As these users view their Earth from space and become aware of their situation, the authors think it likely that they will want to address our most pressing contemporary global issues. These components can be expected to feed into a generative learning system that may impact the diversity of cultures and our well-being in toto as a planetary society that has crossed the threshold into a suite of overwhelming challenges.

### Virtual reality solves just as well as actual space travel.

Jun Okushi, Space Architect who has worked with NASA on projects relating to the International Space Station, Founder at Supra-Systems, Director at OPS-Alaska Japanese Operations, Director at SpaceProjectsGroup/OkushiArchitects, holds an M.Arch in Space Habitation from the Southern California Institute of Architecture, and Marilyn Dudley-Flores, Head of the School of Social Sciences at Atenisi University, worked as a Field Research Social Scientist in the Human Terrain System for the U.S. Army, CEO and Chief Research Scientist with OPS-Alaska, holds a Ph.D. in Sociology from the University of South Carolina-Columbia, 2007 (“Space and Perceptions of Space in Spacecraft: An Astrosociological Perspective,” Paper Presented to the American Institute of Aeronautics and Astronautics Space Conference & Exposition, Available Online at http://www.astrosociology.com/Library/PDF/Contributions/Space%202007%20Articles/Space%20and%20Perceptions.pdf, Accessed 06-26-2011, p. 5-6)

Author Frank White has mentioned on the radio that he would like to allow more human beings to experience the “Overview Effect” by creating realistic simulations of space travel that go beyond the visual to include the other senses and perhaps create the feeling of isolation as sensed by space travelers. And, if the ordinary individual in Canada, in Italy, in Mozambique, in the Seychelles, in Tajikistan, in Mongolia, in Papua-New Guinea, and in California or any other locale, in his or her space-like isolation, can look out the window to apprehend the Earth, there will likely swell within his or her heart new feelings and new realizations. Such is a paradigm shift, born of humanity abroad in the Cosmos, **even if bound to the Earth**. This shift can be expected to more tightly integrate humans, their machines, and the experiences of all those on Mother Earth. By engaging the challenges of abyssal [end page 6] distances, the humans of the whole Earth can develop a sense of kinship, that “we are in this together,” a perception never fully developed to date by the global population in its history. And, hopefully, one that will be coming soon.

## No “U.S. Key” Warrant

### U.S. action isn’t key—their author agrees.

Frank White, author of six books about space exploration, founder of the Overview Effect Institute, frequently speaks at conferences about space exploration, holds a B.A. from Harvard College and an M.Phil. from Oxford University, 1987 (“The Old Space Program and the New Space Program,” *The Overview Effect: Space Exploration and Human Evolution*, Published by Houghton Mifflin Company, ISBN 0395430844, p. 105)

Building these new civilizations is a far greater task than can be encompassed by the space program of a single nation. It means that Americans can no longer see NASA’s agenda as the space program. It is not wrong to admit the limits of what one nation can do in space. The mistake is to hope that the American space program can or should be more than the situation requires. The success of the old program should be applauded, and the successors it has spawned should be seen as potential allies, not as competitors to be defeated in new space races.

## Critique Link

### The Overview Effect is just another way to pursue control of the universe—their argument is infantile narcissism.

Peter Dickens, Affiliated Lecturer in the Department of Sociology at the University of Cambridge, Visiting Professor of Sociology at the University of Essex, and James S. Ormrod, Teaching Fellow in Sociology at the University of Essex, holds a Ph.D. in Sociology from the University of Essex, 2007 (“Outer Space and Internal Nature: Towards a Sociology of the Universe,” *Sociology*, Volume 41, Number 4, August, Available Online to Subscribing Institutions via Sage Publications Online, p. 615-617)

There are strong indications that these pro-space activists are amongst those most affected by late modern narcissism. Early on in life, these activists come to **project infantile unconscious phantasies** (those relating to omnipotence and fusion with the infant’s ‘universe’) into conscious fantasies2 about exploring and developing space, which increasingly seem a possibility and which now achieve legitimacy largely through the ideology of the libertarian right. Those who have grown up in the ‘post-Sputnik’ era and were exposed at an early date to science fiction are particularly likely to engage in fantasies or daydreams about travelling in space, owning it, occupying it, consuming it and bringing it under personal control. Advocates talk about fantasies of bouncing up and down on the moon or playing golf on it, of mining asteroids or setting up their own colonies. These fantasies serve to **protect the unconscious phantasy** that they are still in the stage of **infantile narcissism**. Of course not all of those people growing up in late modern societies come to fantasize about space at such an early age like this, and are less single minded in their attempts to control and consume the universe, but we argue that this is nonetheless the way in which some dominant sectors of Western society relate to the universe. It is not only pro-space activists, but many well-to-do businesspeople and celebrities who are lining up to take advantage of new commercial opportunities to explore space as tourists.

The promise of power over the whole universe is therefore **the latest stage** in the escalation of the narcissistic personality. A new kind of ‘universal man’ is in the making. Space travel and possible occupation of other planets **further inflates people’s sense of omnipotence**. [end page 615] Fromm (1976) discusses how in Western societies people experience the world (or indeed the universe) through the ‘having’ mode, whereby individuals cannot simply appreciate the things around them, but must own and consume them. For the narcissistic pro-space activist, this sentiment means that they feel a desperate need to bring the distant objects of outer space under their control:

Some people will look up at the full moon and they’ll think about the beauty of it and the romance and history and whatever. I’ll think of some of those too but the primary thing on my mind is gee I wonder what it looks like up there in that particular area, gee I’d love to see that myself. I don’t want to look at it up there, I want to walk on it. (25-year-old engineering graduate interviewed at ProSpace March Storm 2004)

Omnipotent daydreaming of this kind is also closely linked to the idea of regaining a sense of wholeness and integration once experienced with the mother (or ‘monad’) in the stage of primary narcissism, counterposed to a society that is fragmenting and alienating.

Experiencing weightlessness and seeing the Earth from space are other **common fantasies**. Both represent **power**, the ability to ‘break the bonds of gravity’, consuming the image of the Earth (Ingold, 1993; Szersynski and Urry, 2006) or ‘possessing’ it through gazing at it (Berger, 1972). They also represent a return to unity. Weightlessness represents the freedom from restraint experienced in pre-oedipal childhood, and perhaps even a return to the womb (Bainbridge, 1976: 255). Seeing the Earth from space is an experience in which the observer witnesses a world without borders. This experience has been dubbed ‘**the overview effect’** based on the reported life-changing experiences of astronauts (see White, 1987).

Humans’ sense of power in the universe means our experience of the cosmos and our selves is fundamentally changing:

It really presents a different perspective on your life when you can think that you can actually throw yourself into another activity and transform it, and when we have a day when we look out in the sky and we see lights on the moon, something like that or you think that I know a friend who’s on the other side of the Sun right now. You know, it just changes the nature of looking at the sky too. (46-year-old space scientist interviewed at ProSpace March Storm 2004)

In the future, this form of subjectivity may well characterize more and more of Western society.

A widespread cosmic narcissism of this kind might appear to have an almost spiritual nature, but the cosmic spirituality we are witnessing here is not about becoming immortal in the purity of the heavens. Rather, it is spirituality taking the form of **self-worship**; further aggrandizing the **atomized, self-seeking, 21st-century individual** (see Heelas, 1996). Indeed, the pro-space activists we interviewed are usually opposed to those who would keep outer space uncontaminated, a couple suggesting we need to confront the pre-Copernican idea of a corrupt Earth and ideal ‘Heaven’. [end page 616]

For these cosmic narcissists, the universe is very much experienced as **an object**; something to be **conquered**, **controlled** and **consumed** as a reflection of the powers of the self. This vision is no different to the Baconian assumptions about the relationship between man and nature on Earth. This kind of thinking has its roots in Anaxagoras’ theory of a material and infinite universe, and was extended by theorists from Copernicus, through Kepler and Galileo to Newton. The idea that the universe orients around the self was quashed by Copernicus as he showed the Earth was not at the centre of the universe and that therefore neither were we (Freud, 1973: 326). However, science has offered us the promise that we can still understand and control it. Robert Zubrin, founder of the Mars Society, trumpets Kepler’s role in developing the omniscient fantasy of science (it was Kepler who first calculated the elliptical orbits of the planets around the Sun):

Kepler did not describe a model of the universe that was merely appealing – he was investigating a universe whose causal relationships could be understood in terms of a nature knowable to man. In so doing, Kepler catapulted the status of humanity in the universe. Though no longer residing at the centre of the cosmos, humanity, Kepler showed, could comprehend it. Therefore […] not only was the universe within man’s intellectual reach, it was, in principle, within physical reach as well. (Zubrin with Wagner, 1996: 24)

Thus Zubrin begins to lay out his plan to colonize Mars.