

STAR CHILD



NATASHA VITA-MORE ON TRANSHUMANISM IN SPACE

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By Tim Ventura and Natasha Vita-More, July 7th, 2006

Space will change us. *It is the inevitable consequence of our species adapting to new environments across the cosmos. It will blur the definition of what it means to be human - and a transformation will occur when being human begins to be something more. We're joined by transhumanist pioneer Natasha Vita-More to take the first steps towards understanding the future of humanity in the stars...*

AAG: I'd like to start out by asking you for a definition of transhumanism. What does the term mean, and what implications does it hold for the future of the human race?

Vita-More: The core idea of transhumanism stems from many visionaries and writers and it can be traced back to Alighieri Dante. The Italian verb "*transumanare*" or "*transumanar*" was used for the first time by Dante (1265-1321) in the Divine Comedy. It means "go outside the human condition and perception" and in English could be "*to Transhumanate*" or "*to Transhumanize*".

Julian Huxley's book written in 1956, "New Bottles For New Wine", contains the essay "Transhumanism" which sets out to explain how humans must establish a better environment for themselves. He also alludes to a new species that the human might eventually become.

Dr. Max More first published the term "transhumanism" as a philosophy in 1990 and authored its definition. The difference in Huxley's and More's transhumanism is that Huxley describes "man remaining man but transcending himself," while More states that man transforms and is no into a transhuman. This transformation is evidenced though the ever increasing merger of technology with human biology...

AAG: I'd like to explore your early exposure to the transhumanist movement. How did you initially get involved with it, and what compelled you to take this vision and make it your own?

Vita-More: I first became interested in the future of culture, arts, science and technology in 1979 while I was living in a ski resort in Colorado. It was there that I had time, and volumes of space, to rethink my life and the future. I moved from Telluride and became a filmmaker in residence at the University of Colorado where I made the short film "Breaking Away," which symbolized humanity's breaking away from outdated myths and stale dogma. I moved to Los Angeles for several reasons. First I wanted to work with Francis Coppola because he was experimenting with new technologies for filmmaking and I wanted to meet Buckminster Fuller and other futurists living in LA. I met FM-2030 who was teaching ideas about the transhuman and we collaborated on several projects. One project was an independent TV talking heads show on the future and lectured at a couple of FM's classes at UCLA on the future and culture. I authored the Transhuman Statement in 1983, and years later co-created a video titled "Ten Minus and Counting" which was exhibited at the American Film Festival.

In 1991, met [Max More](#) after reading his writings on transhumanism. I thought, "Who is this person?!", because I had already written the [Transhuman Statement](#) about the [arts and culture of transhumans](#). I was delighted to meet him. Max impressed me as a person who had enormous integrity and a sense of what to pay attention to and what to avoid. I liked this because as an artist, we pay attention to as much as possible and our thoughts can become muddy. Max was such a streamlined thinker and I learned a lot from him.

I became involved with extropy in the early 1990s. Max was the philosopher behind transhumanism and the [Extropy Institute](#), and he was working to establish the philosophy of Extropy as the central philosophy of transhumanism, so it was a fortuitous synchronicity. Extropy Institute was the best place to discuss and debate ideas about the future with people smarter than myself.

AAG: Now you've really been a leader in extropian activism and the spokeswoman for transhumanism for a long time, and I'm wondering if you could tell us about some of the personal achievements in this area that you're the most proud of, as well as some aspects of promoting this movement where you've made the greatest impact?

Vita-More: The thing about personality types such as myself is that we're always looking for the next project and spend little time, if any, enjoying what we have already achieved. Your question gives me a moment to reminisce. I suppose I am most proud of are the ones that I hope to achieve. And I mean this in all sincerity. I have produced a closet full of projects that I simply do not have to reflect on. But I did enjoy my talking heads TV show I produced in LA and aired in Telluride, Colorado. It was the very first TV program on transhumanism and the future,



Natasha Vita-More: Spokeswoman for the Extropian and Transhumanist movements.

especially on the future of ideas such as The Singularity, consciousness-uploads, super-intelligence, environmental issues, fears and concerns of technology, etc. My dream at that time was to have a non-prime time program. It still rests someplace in the back of my mind, probably at the brain stem.

Another project that I created that I enjoyed very much was the video "2 Women in B&W" which received recognition at "Women in Video." It is a poetic replaying of phrases between two non-gender specific individuals asking why they are trapped in a moment in time while they exchange emotional roles. I thought this was symbolic of the late 20th Century issues of identity.

The projects that I have done that have had the greatest impact is designing a future body prototype, "[Primo Posthuman](#)" which is a new genre of the human. I had no idea when I conceived this concept that it would have such long legs. It has been covered in magazines and newspapers worldwide and it turned me into a bit of a scientist as well.

I think that walking one's talk is the real reason why some people succeed and others do not. People are smart and can see through pretense. I may not be wealthy or famous, but I certainly believe in authenticity. I have tried to carry this with me throughout my life. The greatest impact I have had on people is simply believing in something that I consider to have enormous value and potential for all of humanity. My vision is that peace and prosperity can be had by all and that the foolishness of people hurting others for their own recognition is the psychological undermining of this potential. I see it everywhere and I wonder is it is not in our genetic makeup and that some people simply see it and others pretend they see it.

AAG: Kurzweil suggested that transhumanism isn't a distant goal for humanity, but that it's already here: he believes that plastic surgery, breast implants, and artificial joints are just a few early technologies leading to larger changes later on. What are some of the proposed enhancements for the human body in transhumanism, and how will we see these changes progress through the 21st century?

Vita-More: Yes, Ray is correct. Transhumanism is a cultural/social movement to actively bring about the transhuman and that is what I personally have been doing for many years. On the other hand, the transhuman is an evolutionary transition from human to posthuman. But we are not at transhuman quite yet, really, and not anywhere near posthuman. Transhumans are not simply humans with cosmetic surgery or artificial, robotic limbs.



Primo Posthuman: Vita-More's project to design an enhanced form of the human body.

Some of the proposed changes that we will witness over the next decades are monumental if we have the freedom to carefully and explore the engineering and science of new technologies and financial backing to do so. The best way for me to explain the potential upgrades to the human is to elaborate on my own design "Primo Posthuman," which is the first future body prototype. <http://www.natasha.cc/primo.htm>

AAG: The "Star Child" at the end of "2001: A Space Odyssey" remains one of the most compelling enigmas in the movie. Do you think that Arthur C. Clarke was suggesting that this is our destiny? Was the Star Child a warning that as humanity enters space, it will change us -- just as any species on Earth gradually adapts to a new environment? Is this mankind's next step?

Vita-More: Kubrick's film is not just a visual poem, it is a multi-layered work of art that can be interpreted any number of ways. Our destiny is to evolve and to expand, and that includes space. Living in space will change us in unimaginable ways, and I trust that the experience will be worth it. As we begin to adapt to new environments, we will grow more resilient, intelligent and far more capable. Hopefully this will be our next step.



2001: Were Clarke & Kubrick telling us that as we enter space, it would begin to change us?

AAG: Space environments contain many hazards for our current biology, such as damaging cosmic radiation, low-gravity leading to bone-loss & muscle deterioration, and with current technology, the simple limitation of trip times to other stars that vastly exceed the human lifespan. Do you see transhumanism being applied to design people capable of thriving in space-bound environments?

Vita-More: The impulse behind transhumanism is to improve the human condition. The condition being a short lifespan ridden with disease. Survival is one element of this impulse which affords a means to overcome the human condition. Survival is based on transforming the current situation into one that is more opportune for our well being. If humans or transhumans are to survive in the environment of space, we need to design that environment to be friendly. We also need to transform ourselves to meet the challenge. In other words, we can design an environment with artificial gravity and reduces the affects of radiation, but we also need to build our bodies to be more adaptable, flexible and sustainable. This would require both medical, scientific, technological and industrial design components. An example of a future body that could exist in a space environment is my design "Primo Posthuman."

AAG: If engineering humans will happen anyways, do you think that it will convey defacto enhancements to humanity for space-exploration, or would tailoring the human body for space-travel require something additional? Would there be moral & ethical limits customizing the body for environments like this?

Vita-More: It seems that the survival and fashion trends for space gear have been developed as second skin accommodations for the body. These spacesuits have certainly become

more convenient for astronauts over the years. For the long-term space travel and lifestyle needs, we ought to have biologically adaptable bodies to meet the environmental challenges of space. This could be the designing new bodies for humans. Rather than moral issues, the most fundamental issue for space explorers is survival. It would be ethical and moral to keep our religious and philosophical views separate from the needs, protection and safety of the adventurous people who risk their lives to explore space. We must do all we can to protect them. If this means customizing the body for space-bound travel, then it must be done.

AAG: One of the goals of space travel is the exploration and eventually colonization of other worlds, and even if we can adapt humanity to space, each world will undoubtedly favor unique environmental adaptations. Do you see this happening, and over time will it split humanity from a single species into an array of uniquely adapted life forms?

Vita-More: I think that entities living in different planetary, space and synthetic environments will need different attributes, and this certainly would differentiate their designs. I don't think this necessarily concludes that there will be all sorts of species, but perhaps numerable variations on the human or transhuman theme. One think to keep in mind is that our future selves may want to be transplanetary and multigalactic. Why would a newly engineered person want to confined to a singular locale? I think that most of the changes will be across the territorial lines and that people will want to co-habitat in multiple locations, and even simultaneously.



Life in Space: Mankind will adapt to life in a dangerous & unforgiving space environment.

AAG: Changes in our genome are presumably permanent, and I'm wondering what happens if we adapt for a condition such as long-space journeys and then find something like Warp-Drive technologies that eliminate our need for that enhancement. Will today's genome still remain the "baseline" leading transhumans back to humanity, and

Vita-More: I do not know, but I think that there will be some traceable element and why not? I am delighted to be a human and it seems likely that future beings will consider humans to be highly creative and inventive animals, just as we today look back on the Australopithecus and the Neanderthals in attempts to understand what their lives were like and to discover how we developed from them. If we are uploads, then we would not be defined by our genome, unless the genome were digitized into a type of algorithm.

AAG: What about overspecialization? As imperfect as we are today, we remain adaptable to a variety of different environments, and I think the point has also effectively been made that our imperfections drive many of our accomplishments to adapt our environment to us. If we begin to adapt ourselves to unique environments, will we produce less naturally adaptable people overall, and will it eliminate some of the drives that have thus far led to our accomplishments in technology?

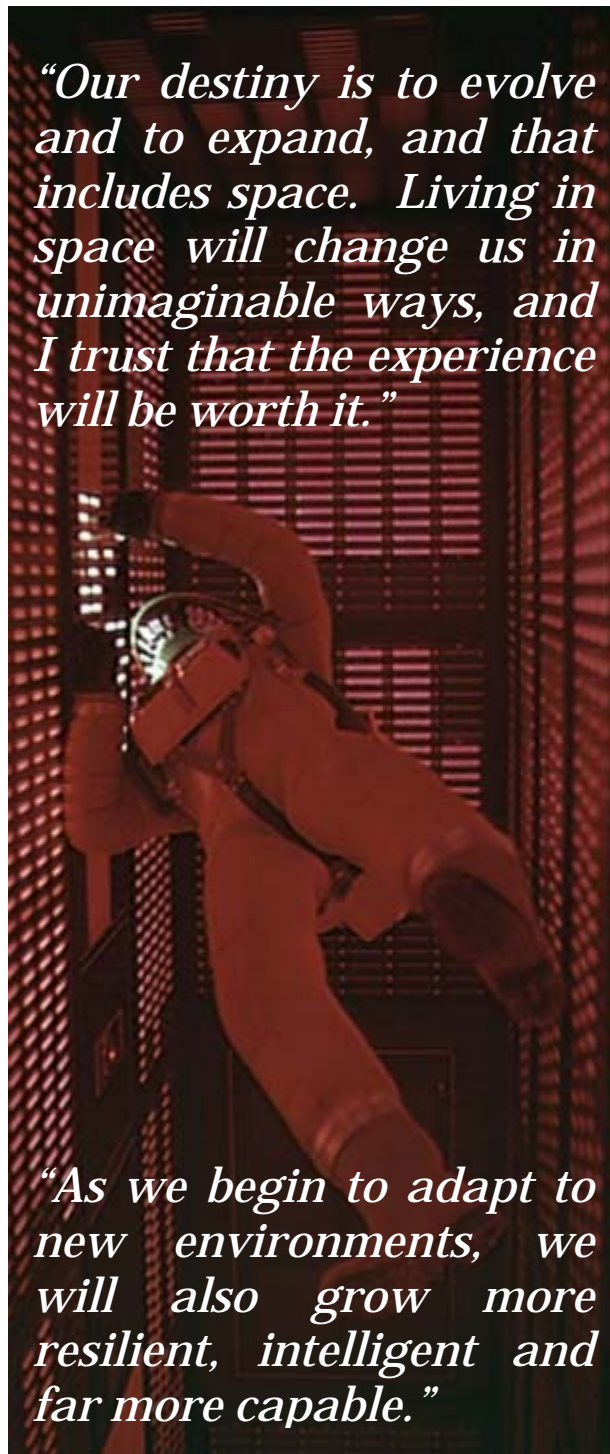
Vita-More: It is our imperfect nature that provides the opportunity for problem solving, which in turn provides opportunity for expanding our creativity. We need imperfection because the art of perfecting is a heck of a lot of creative and intellectual fun!

AAG: Racism & discrimination remain tragic social issues, but when you think about it, the differences in skin-color that we perceive as different races are nothing compared to the differences to be conveyed over time by genetic engineering. Even if transhumans are welcomed at first into our society, after they become commonplace, do you see discrimination occurring against them from humans who remain unchanged, or perhaps have changed themselves in different ways?

Vita-More: Transhumans could look like humans, but have better functioning bodies, with a higher bandwidth of cognition and stronger sensory capabilities, for example. Transhumans will probably have millions of nanorobots in their brains and bodies performing all sorts of tasks to help them function better, both cognitively and physically. So, if the question is whether humans will be envious of or annoyed by the transhuman, it seems plausible that they will be. However, I see no reason why humans would not want to be transhuman and if nanotechnology development continues bringing in financial backing, research and development, and if conservatives apply critical thinking and objective principles, such as the Proactionary Principle rather than the precautionary principle to policy making, there could very well be a universal health care for all people on earth to live full and long lives.

AAG: The flip-side of transhumanism is that it allows humanity to explore the eugenic fantasy of the "perfect human", and I'm wondering if that might not lead to reverse-discrimination or even a Nazi-like movement against humans who choose to stay "pure" and retain the flaws they were originally endowed with by nature. Will transhumans respect normal humans as the progenitors of their species, or will mankind in it's present form eventually be regarded as "obsolete"?

Vita-More: Interesting you should ask this. I am currently writing an article for a UK mean's publication on perfecting man. In sum, perfection is a paradox because it is the "imperfect" that exists in a fluid state in continuing the art or craft of perfection.



“Our destiny is to evolve and to expand, and that includes space. Living in space will change us in unimaginable ways, and I trust that the experience will be worth it.”

“As we begin to adapt to new environments, we will also grow more resilient, intelligent and far more capable.”

Perfect, by itself, is a point of stasis, or inertia. To desire the perfect is to desire nothing more.

Humans who wish to stay purely human certainly ought to have that option! I cannot imagine coercing anyone to become or do something that would be injurious to their health and well being. But let me explain that people who want to retain all of their biological flaws will give in, step by step, and make the transition. Today, Christian Scientists pray rather than permit medical intrusion. They also can wear eye glasses. Tomorrow they may want other technologies to aid their stressed body parts. Today, the Amish hold fast to outdated technologies and sequester themselves to locations where they can work and live outside the mainstream social norms, although they have adopted kerosene lamps and propane refrigerators. And the "New Order Amish" drive cars. The point is that Christian Scientists and the Amish live by assisted technologies, they simply limit them to a certain century. Society accepts these two distinct cultures regardless of whether they think the practitioners are harboring stale guilt or dogged illogic because they do not insist that others adopt their beliefs. This is the key point. Transhumanists do not insist or expect the rest of society to adopt our beliefs.

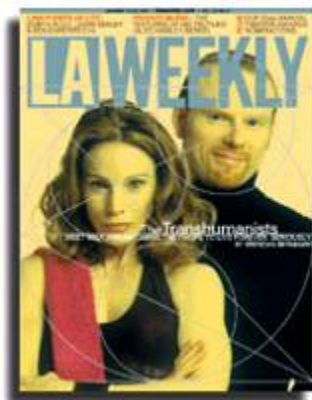


Create/Recreate: A primer on transhumanism.

AAG: Transhumanism doesn't come from nowhere - there are many social pressures driving it, such as an aging population of baby boomers, and the need for real advances in medical technology & preventive medicine. Do you see transhumanism as being inevitable? Do you think that it will eventually be subject to legislation?

Vita-More: When groups of people come together and are motivated to make changes and by and through these changes more people become involved, they eventually form movements. Movements are powerful forces that can bring about enormous social change. Yes, I think it is inevitable that we would have a movement that perceived a vision of humans actually living longer than our short lifespan and would pursue technologies, sciences and medicine to accomplish longer lifespans. Specific tenets of transhumanism and the initiatives for accomplishing transhumanist goals will become subject to legislation.

AAG: There's been some fear about enhancing the human mind & body, but isn't that fear just the kind of reactionary thinking that occurs when any new technology emerges? After all, transhumanism is all about living longer, being stronger, thinking faster, and enhancing human gifts, which are some pretty compelling & positive reasons to get involved with this movement...



Transhumanism: Max More & Natasha Vita-More.

Vita-More: Yes, we all have a knee-jerk to challenges and changes that could affect our comfort zone. For people who are not particularly interested in the future, transhumanist ideas could be discomfoting to them as sailing to the New Land was to the British in search of religious freedom.

Civilization is perpetually in search of freedom and the brave ones will take on the challenge because they intuitively know that it is a meaningful challenge and that it will forever change the existing state of affairs.

AAG: It wasn't fully resolved until "3001: The Final Odyssey", but Clarke ended the series with the notion that Bowman - the "Star Child" - wasn't a biological entity at all, but that instead his consciousness had been uploaded into the monolith, making him in essence a form of artificial intelligence. Do you think that transhumanism will be a precursor to eventually just uploading human consciousness into machines to explore space for us?

Vita-More: I don't know. I am not very good at comparing science fiction to serious fact. Transhumanism is supportive of our building technologies that will extend human life.

AAG: In this vast scope of possibilities for changing the human body, will it be even really be fair to call this exploration "human accomplishment" if we change ourselves to begin the exploration? In one sense, isn't it an admission that space isn't something that we can explore if we have to change ourselves for that? Does it devalue the achievement in any way?

Vita-More: I think it is entirely fair. We have been altering our bodies for eons. Consider the fact nasal reconstruction was written about back in 600 BC, and later in the 1800s paraffin, gold and cork, were used in nasal reconstruction. Salvino D'Armate designed eyeglasses in 1291 and the first cataract was removed in 1748. Humans have been poking, cutting and painting the body for a very long time. These examples may sound mundane, but they reveal the fact that we alter ourselves to adapt to the environment. If the next frontier is space, it is necessary to adapt. Part of exploration is adaptation.



Childhood's End: The journey into space will be our greatest endeavor, and will change us forever.

Natasha Vita-More is the president of the [Extropy Institute](#), the founder of "[Transhumanist Arts & Culture](#)" online, and a member of [The Association of Professional Futurists](#). She is well-recognized as a community leader and true pioneer in the Extropian & Transhumanist movements, along with her husband, [Dr. Max More](#).

Movie stills from "2001: A Space Odyssey" © 1998 MGM Home Entertainment, used with permission.