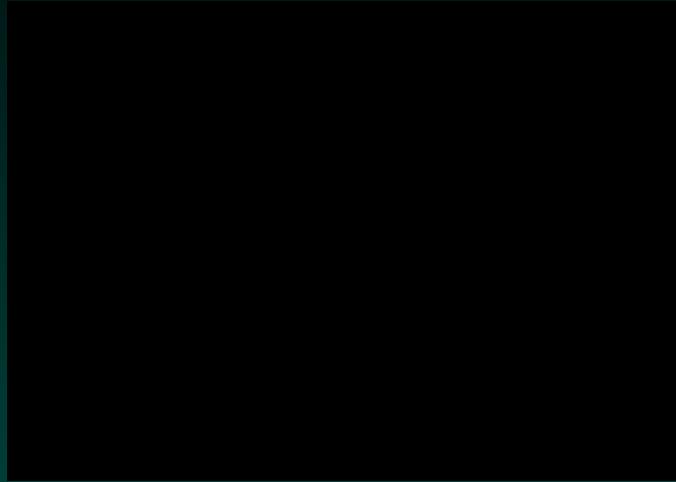


# *Hacking Humanism*



Life as we have  
known it is over.

Resistance is futile.

Cyborg



## Cyborgs and Space

12

Altering man's bodily functions to meet the requirements of extraterrestrial environments would be more logical than providing an earthlike environment for him in space. Artificial organism systems which would extend man's capabilities, self-regulatory controls, and possibly life.

By Manfred E. Clynes and Nathan S. Kline



Clynes Kline

Manfred E. Clynes, a biochemist and independent scientist at Fordham University, is director of the Program in Space Medicine at the University of Pennsylvania. Nathan S. Kline, a psychiatrist and professor at the University of Pennsylvania, is director of the program in Space Medicine at the University of Pennsylvania.

"Clynes and Kline have been discussing the possibility of creating man-made organisms in the laboratory. They are also discussing the possibility of creating man-made organisms in the laboratory. They are also discussing the possibility of creating man-made organisms in the laboratory."

The authors indicated on a page printed under the title of "Cyborgs and Space" that they were "discussing the possibility of creating man-made organisms in the laboratory. They are also discussing the possibility of creating man-made organisms in the laboratory."

**S**PACE itself challenges man's ability to adapt to an environment far more hostile than that of our earth. It is the time to take the next step in the evolution of man. The next step is to take the next step in the evolution of man. The next step is to take the next step in the evolution of man.

The task of adapting man's body to an environment far more hostile than that of our earth is a complex one. It requires a knowledge of human anatomy, the physiology of the body, and the ability to be self-regulated and self-regulated. In the past, man has been able to adapt to a wide variety of environments. However, the ability to adapt to a hostile environment is a complex one. It requires a knowledge of human anatomy, the physiology of the body, and the ability to be self-regulated and self-regulated.

Humanity's ability to adapt to a hostile environment is a complex one. It requires a knowledge of human anatomy, the physiology of the body, and the ability to be self-regulated and self-regulated. In the past, man has been able to adapt to a wide variety of environments. However, the ability to adapt to a hostile environment is a complex one. It requires a knowledge of human anatomy, the physiology of the body, and the ability to be self-regulated and self-regulated.

Science fiction authors have often been criticized for creating unrealistic worlds. However, the authors of "Cyborgs and Space" are not science fiction authors. They are scientists. They are discussing the possibility of creating man-made organisms in the laboratory. They are also discussing the possibility of creating man-made organisms in the laboratory.

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# Manfred Clynes Nathan Kline "Cyborgs and Space" Astronautics 1962

“Altering man’s bodily functions to meet the requirements of extraterrestrial environments would be more logical than providing an earthly environment for him in space.”

## Cyborgs and Space

Altering man's bodily functions to meet the requirements of extraterrestrial environments would be more logical than providing an earthly environment for him in space. Artificially regulated, self-regulatory control.

By Michael J. Hammond, Director of Research



Michael J. Hammond, Director of Research, is a member of the American Association of Aeronautics and Astronautics. He is also a member of the American Society of Space Engineers. He is currently a member of the Board of Directors of the American Society of Space Engineers. He is also a member of the Board of Directors of the American Society of Space Engineers.

Science is often the best solution to the problems of the future. It is the only way to solve the problems of the future. It is the only way to solve the problems of the future. It is the only way to solve the problems of the future.

The article is based on a paper presented at the 1964 meeting of the American Society of Space Engineers. The paper was titled "The Possibility of Altering Man's Bodily Functions to Meet the Requirements of Extraterrestrial Environments." The paper was published in the Journal of Space Research.

Scientific knowledge of immediate knowledge, the scientific aspects of which are not beginning to be understood and investigated. In the past, problems were solved by the application of knowledge of the human body in different environments. Having no of some, it will be possible to determine the human body's physical condition in the future by the use of artificial, self-regulatory, self-regulatory mechanisms of the human body.

Humanity's development is not in progress, but is designed to provide a self-regulatory system for the human body. The human body is a self-regulatory system. It is a self-regulatory system. It is a self-regulatory system. It is a self-regulatory system.

Science has not yet found a way to solve the problems of the future. It is the only way to solve the problems of the future. It is the only way to solve the problems of the future. It is the only way to solve the problems of the future.

Humanity is the only way to solve the problems of the future. It is the only way to solve the problems of the future. It is the only way to solve the problems of the future. It is the only way to solve the problems of the future.



“Altering man’s bodily functions to meet the requirements of extraterrestrial environments would be more logical than providing an earthly environment for him in space.”

“For the exogenously extended organizational complex functioning as an integrated homeostatic system... we propose the term cyborg.”

“There are many actual cyborgs among us in society. Anyone with an artificial organ, limb or supplement (like a pacemaker), anyone programmed to resist disease (immunized) or drugged to think/ behave/ feel better (psychopharmacology) is technically a cyborg.”



Gray et al, *Cyborg Handbook*  
(New York: Routledge, 1995)

“A much higher percentage participate in occupations that make them into metaphoric cyborgs, including the computer keyboarder joined in a cybernetic circuit with the screen, the neurosurgeon guided by fiber optic microscopy during an operation, and the teen gameplayer in the local video game arcade.”



N. Katherine Hayles, “The Life Cycle of Cyborgs” (1995)

Donna Haraway  
“A Cyborg Manifesto”

Donna J. Haraway



*Simians, Cyborgs, and Women*  
*The Retention of Nature.*

Donna J. Haraway



Companion Species, and Women  
of Nature.

## Two Boundary Breakdowns

- That between animals (or other organisms) and humans
- That between self-controlled, self-governing machines and organisms especially humans

“By the late twentieth century in United States, scientific culture, the boundaries between human and animal is thoroughly breached. The last beachheads of uniqueness have been polluted if not turned into amusement parks-- language, tool use, social behavior, mental events. Nothing really convincingly settles the separation of human and animal”

Donna J. Haraway



Simians, Cyborgs, and Women  
*The Retention of Nature.*

“By the late twentieth century in United States, scientific culture, the boundaries between human and animal is thoroughly breached. The last beachheads of uniqueness have been polluted if not turned into amusement parks-- language, tool use, social behavior, mental events. Nothing really convincingly settles the separation of human and animal”

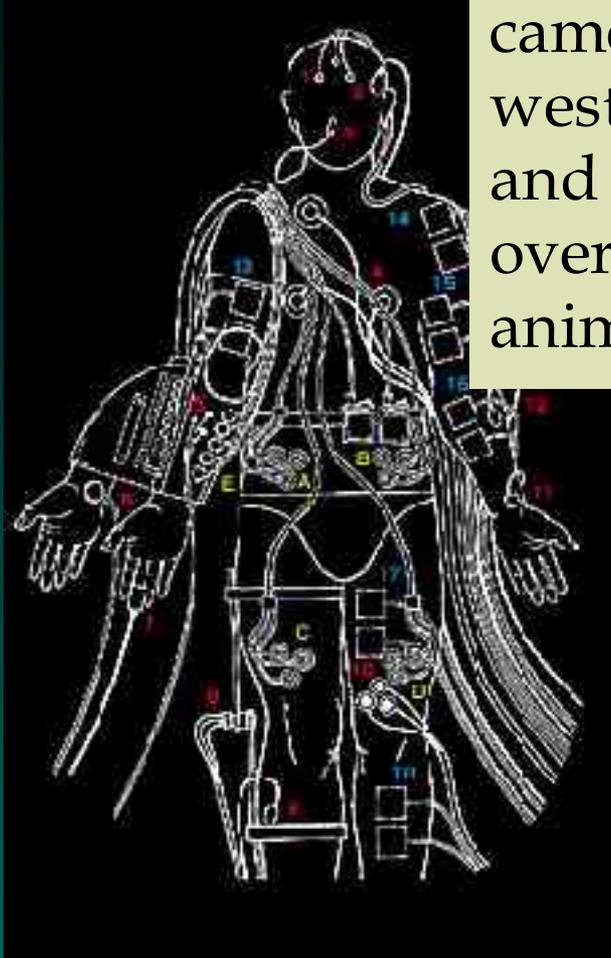
“Late twentieth century machines have made thoroughly ambiguous the difference between natural and artificial, mind and body, self-developing and externally designed, and many other distinctions that used to apply to organisms and machines. Our machines are disturbingly lively, and we ourselves frighteningly inert”

Donna J. Haraway



Primate Visions, Cyborgs, and Women  
*The Reinvention of Nature.*

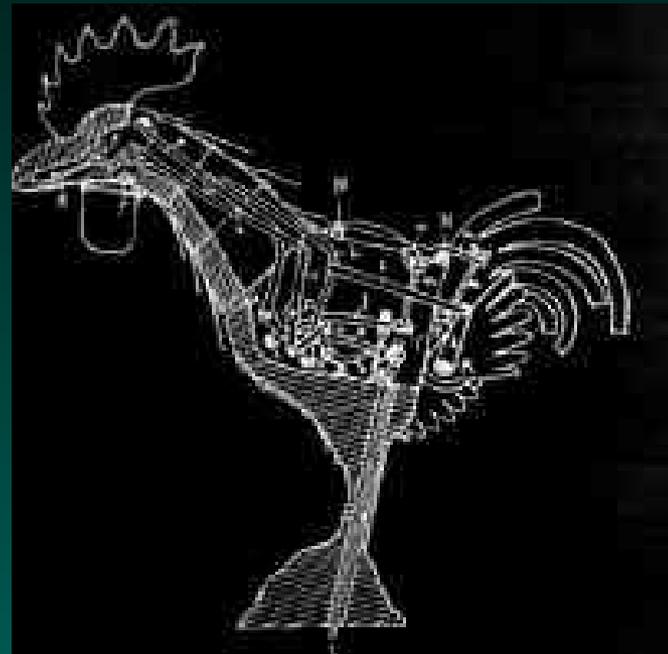
“The concern about man’s animal and mechanical nature came forcefully together in the west in the seventeenth century and did so in terms of a debate over what was called the animal-machine.”

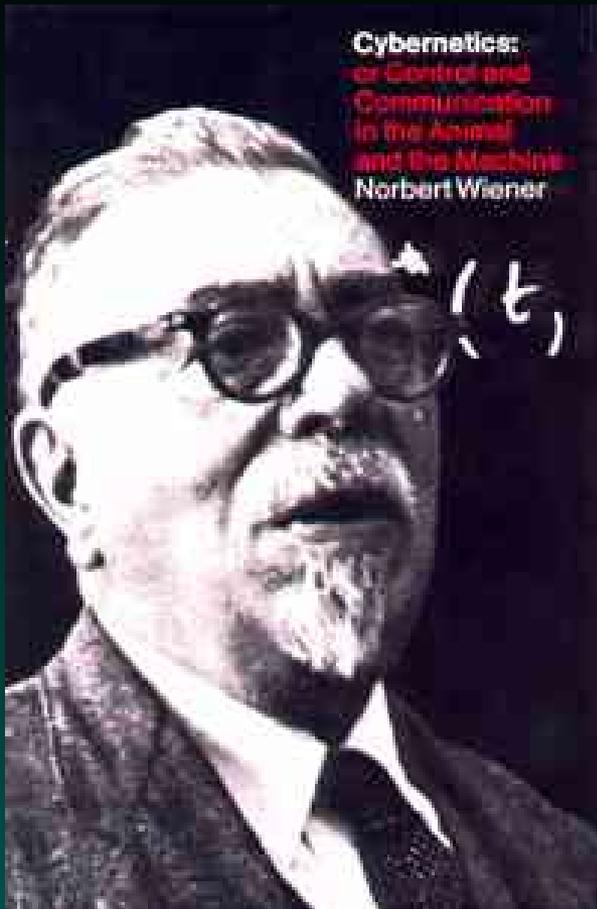


Bruce Mazlish, *The Fourth Discontinuity*  
(New Haven, Yale University Press, 1993)

Rene Descartes  
*Discourse On Method*

La Mettrie  
*L'Homme-Machine*





“We have decided to call the entire field of control and communication theory, whether in the machine or in the animal, by the name *Cybernetics*, which we form from the Greek *Kybernetes* or steersman.”

$$\left. \begin{aligned} k(\omega) &= \frac{1}{2\pi} \int_{-\infty}^{\infty} K(t)e^{-i\omega t} dt \\ q(\omega) &= \frac{1}{2\pi} \int_{-\infty}^{\infty} \overline{Q(t)}e^{-i\omega t} dt \\ r(\omega) &= \frac{1}{2\pi} \int_{-\infty}^{\infty} R(t)e^{-i\omega t} dt \end{aligned} \right\} \quad (3.907)$$

$$\Phi_{11}(\omega) + \Phi_{22}(\omega) + \overline{\Phi_{12}(\omega)} + \overline{\Phi_{21}(\omega)} = |k(\omega)|^2 \quad (3.908)$$

$$q(\omega)\overline{k(\omega)} = \Phi_{11}(\omega) + \Phi_{21}(\omega) \quad (3.909)$$

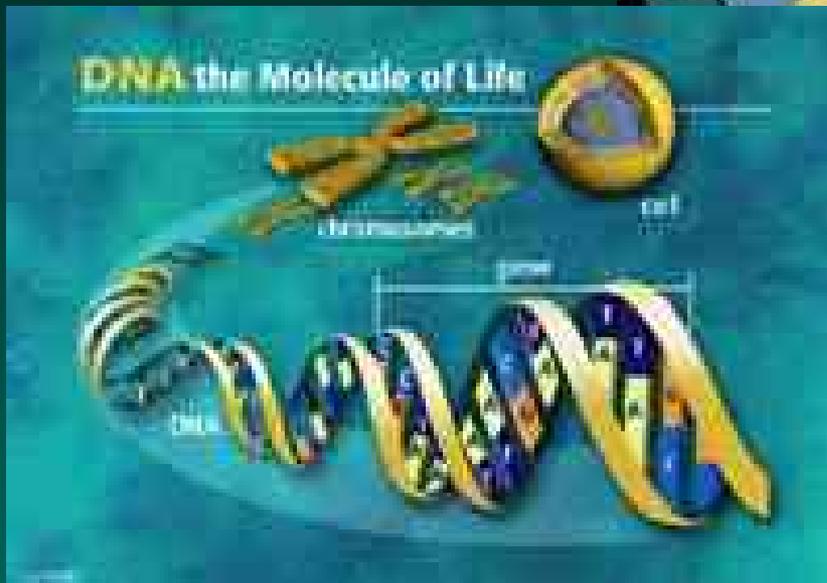
For symmetry we write  $\Phi_{21}(\omega) = \overline{\Phi_{12}(\omega)}$ . We can now determine  $k(\omega)$  from Eq. 3.908, as we have defined  $k(\omega)$  before on the basis of Eq. 3.74. Here we put  $\Phi(t)$  for  $\Phi_{11}(t) + \Phi_{21}(t) + 2\Re\{\Phi_{12}(t)\}$ . This will give us

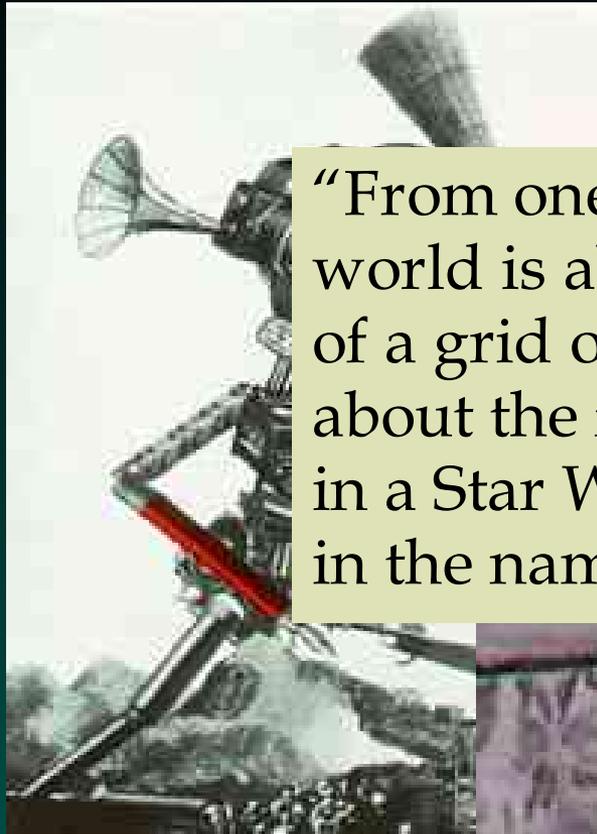
$$q(\omega) = \frac{\Phi_{11}(\omega) + \Phi_{21}(\omega)}{k(\omega)} \quad (3.910)$$

Hence

$$Q(t) = \int_{-\infty}^{\infty} \frac{\Phi_{11}(\omega) + \Phi_{21}(\omega)}{k(\omega)} e^{i\omega t} d\omega \quad (3.911)$$

# Human Genome Project





“From one perspective, a cyborg world is about the final imposition of a grid of control on the planet, about the final abstraction embodied in a Star Wars apocalypse waged in the name of defense.”





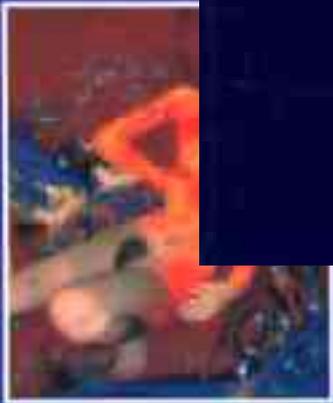
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edited by eyal zohar & jahnke wertz

Jacques Derrida  
MARGINS  
of Philosophy

VOLA  
BOD

TOWARD A CORPO



ELIZABETH GROSZ

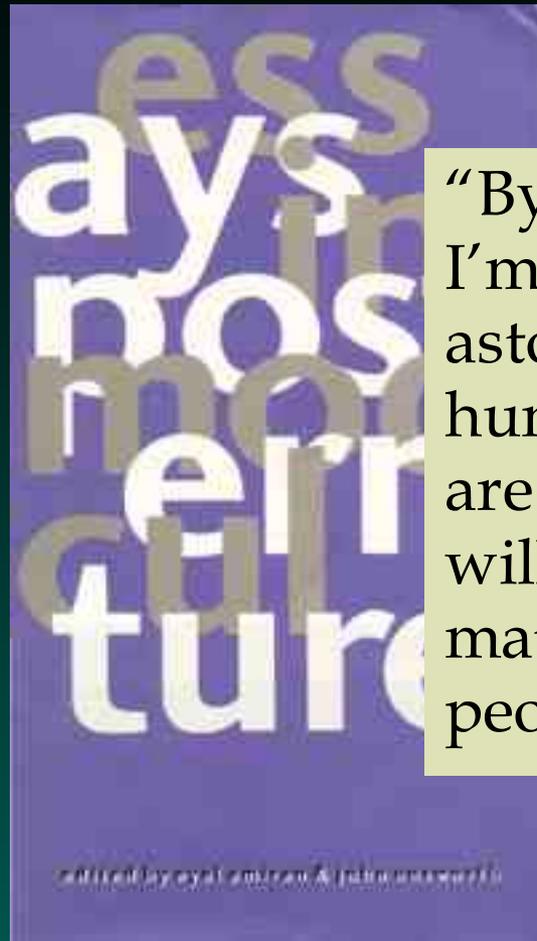
Woman  
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THE ORDER  
OF THINGS

Archaeology of  
Human Sciences

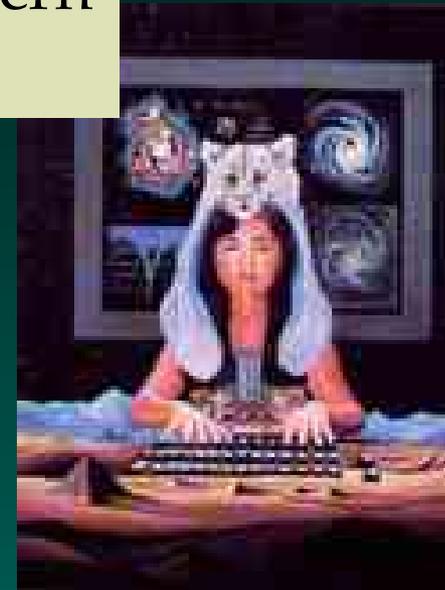
Foucault



“By using the cyborg as a starting point, I’m saying--and this is by no means an astounding observation--rhetorics of humanism and organicism have produced, are currently producing, and, I dare say will probably always produce radical material inequities for the vast majority of people.”

Allison Fraiberg, “Of AIDS, Cyborgs, and Other Indiscretions” (1993)

“Perhaps we can learn from our fusion with animals and machines how not to be Man, the embodiment of Western Logos.”



Donna Haraway, *Simians, Cyborgs, and Women*  
(New York: Routledge, 1991)



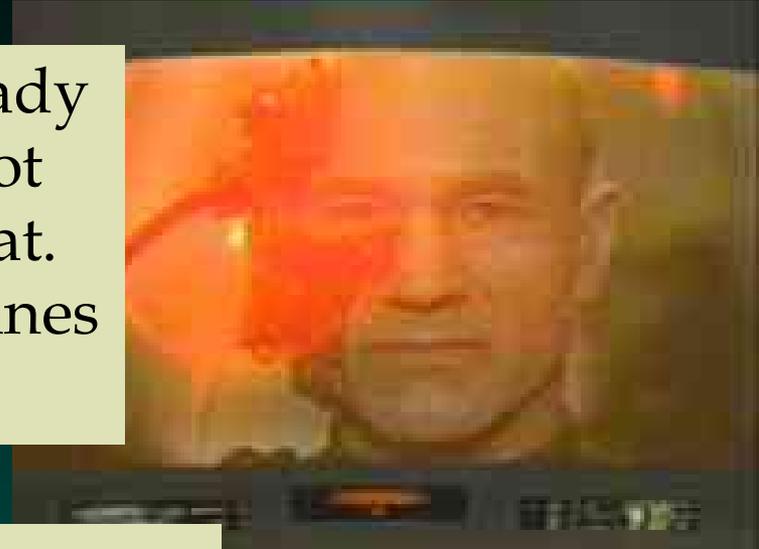
Mark Dery, *Escape Velocity*  
(New York: Grove Press, 1996)

“The trespass across the once-forbidden zone between the natural and the artificial, the organic and the inorganic render much of what we know--or thought we knew--provisional.”

# Conclusions

1. We are Borg. We are already assimilated. The cyborg is not some future promise or threat. It already describes and defines who and what we are.

2. Resistance is futile. Because we are already cyborg, the cyborg is not something that could be resisted with any amount of strength or resolve.



# Conclusions

3. From one perspective, a perspective that still values the human and humanist thinking, this can only appear to be a bad thing—dehumanizing operation.

4. From another perspective, a perspective that is open to alternative arrangements and values, this post-human entity challenges the humanist assumptions that have all too often created problems for us and for the *others* who inhabit this planet with us.

