

## **Postbiology between protocol and manifest: portraiture of a passing specie**

Denisa Kera

National University of Singapore

Philosophy and art increasingly reflect upon the emergent forms of life, society and politics created in the biotech laboratories and further developed and tested across the biotech industry. These translations of scientific protocols into philosophical tractates (Donna Haraway, Hannah Louise Landecker, Nikolas Rose, Aihwa Ong, Catherine Waldby, etc.) or even art manifests (Symbiotica, Marta de Menezes, Eduardo Kac, Adam Zaretsky, etc.) express our expectations and fears vis-à-vis the newly discovered and created entities. Custom made bacteria, artificial DNA, viral quasispecies, various transgenic, chimeric, synthetic and copyrighted organisms challenge our anthropocentric presumptions, notions of life, evolution and nature - but also normative ideals related to our ethics, society and politics. They transform the common world into a postbiological arena in which the organic and the nonorganic, the natural and the constructed, human and nonhuman, physics and techné, mix, play and blend.

This emerging postbiological arena articulated by various scholars and artists expands the ambiguities of a society and politics immersed in science and technology which are present in the concepts such as technological society, information society, network society, post-industrial society, service society, globalised society, transnational empires, etc. Do such reflections change our view of what a society is today or do they re-evaluate the meaning of science and technology? What does the emphasis on technology or biotechnology bring to the social, political and economic interpretations and how do social sciences, politics or art improve our understanding of the biotechnological revolution? How do we reconcile the challenges of every new discovery and innovation with the demands placed on us by the principle of justice, ideals of good life, aesthetic judgement on beauty or some other value? How do we accommodate scientific facts discovered in the laboratories with the norms and rules created by our institutions and traditions?

What is the function of art in this interactions between biology, technology and politics?

On one side bioart complies with the more conservative response to these questions given by different philosophers of biopolitics, and on the other side bioart is becoming something of a 'portraiture of a passing specie' developing postbiological and posthuman perspectives of our future. From the biopolitical perspective (Michel Foucault, Giorgio Agamben, Francis Fukuyama, Roberto Esposito) we are facing the end of history and depolitisation of human societies in which politics is simply replaced by management of the biological life. This management loses any historico-political aspirations and attention is given only to the physical fitness and other reductionist views of what it means to be human: 'Genome, global economy, and humanitarian ideology are the three united faces of this process in which posthistorical humanity seems to take his own physiology as its last, impolitical mandate' (Agamben 77) . The postbiological and posthuman perspective (Bruno Latour, Donna Haraway, Deleuze and Guattari) emphasis is not only the future but also a critique of the narrow view of politics and history. It emphasizes not only a new relation between the social, human and the natural and technological, non human, but more importantly works with a different relation between the material and semiotic and opens new set of ontological questions that are often inspired by science, for example by some radical biological theories like symbiogenesis by Luis Margulis.

While the philosophers are writing the bestiary for the 21st century, the artists are developing an art of portraiture of a passing specie and cooperate with different biotech entities to create sculptures from tissues, do performances with DNA, make installations from biotopes and use media displays made from bacteria. In a similar fashion where the Middle Age's bestiaries were describing and defining our relation to the unknown, to the transgressive and monstrous, various art projects and philosophical essays are also searching for new models of a common world. Posthuman and biopolitical philosophy and bioart function basically as probes into the emergent forms of global collectives and hybrid identities of the biotech age. Rather than teleology, they bring forward the dynamic and heterogeneous agency of the material world.

The posthuman and the postbiological condition that they define, replaces the aesthetic and moral values of beauty, integrity and unity with expressiveness and

hybridity. Our world is a stage and arena in which we do not strive for perfection but for constant change and for new types of connections and networks to appear. While science protocols and experiments may bring more lasting networks between different agents, artistic performances and philosophical theses create often new and unimaginable combinations to help us grasp our postbiological future. They help us face the challenges of the biotech age and its new forms of symbioses between the organic and the inorganic world, between technology and society. They try to develop the normative concepts that are already involved in the relations between the globalization, evolutionary and technological processes today.

For many centuries, only philosophers dared to question the limits of our thinking and matter, to investigate the ultimate nature of our being and our world and to seek what constitutes reality. The traditional branches of philosophy - cosmology and ontology - go back to the pre-Socratic thinkers and culminate in the Middle Age philosophy, after which they start to transgress into new disciplines during the modern period of Rationalism and Empiricism. After the 17th century, the questions of metaphysics ceased to be the ultimate object of study for the human mind which took interest in more 'worldly' issues. We could view this as the demise of metaphysics and a beginning of the division of sciences and competences leading us to the present day loss of appreciation for philosophy and humanities. However, this view does not do justice to the fact that by the end of 20th century the metaphysical questions are not only back, but they are increasing in numbers and urgency with disciplines such as, theoretical physics, astrophysics, biotechnology and nanotechnology. Not only are the limits of our thinking and matter still in stake, but also the limits of what we consider human and even organic life arise.

The questions about the limits of our thinking and matter, and also, the limits of what constitute society never actually disappeared completely, but transgressed into experiments of science and technology involving the metaphysical pursuit, not only of human minds but also machines and different instruments that supposedly give us better answers to all our questions. Since the 17th century the instruments of science and technology, different protocols and machines, are the true instruments of metaphysics - creating ever more intimate bounds with our minds. The machines are simply taking the traditional role of the philosophers, or rather, joining the philosophers and challenging the notions of life, community, reality, meaning and truth. They do this not only by confronting us with radical ideas about what is life and reality, but also by literally transforming our world with new discoveries and

technologies. They create, discover and bring new entities to the world and society and force us to reconsider our institutions, culture, literacy and forms of life. These new entities discovered by science or created by technology appear in our world with increasing pace and inhabit an environment, society, legal system and culture which are trying to absorb them and get used to them.

We live at a time when different particle accelerators, colliders, supercomputers and grids investigate the limits of our physical microworld and test our limits of processing data and understanding reality. Those are the true metaphysicians of our time - simulating conditions almost unthinkable by human minds - and constructing theories and experimenting with the frontiers of matter. We live at a time when different models of computer networks from WWW to P2P networks and different forms of distributed and cloud computing create not only new businesses and economy but also new legal issues, new social dynamics, new regulatory bodies, institutions and a whole new politics. We live at a time when biotechnology creates hybrid and hard to define forms of life which turn our world into an almost postbiological arena and circus. The task of categorizing these new types of beings and defining their rights and relations to the rest of the planet and the universe is still ahead of us.

Bioarts and philosophers dare to ask the dangerous question about the status and the role of humans in this world where different machines and science discoveries constantly transform beyond the limits of our understanding and control. All human activities like business, politics and culture are intrinsically connected to different technologies, not to speak of our health and reproduction issues and even death - unthinkable outside the context of different sociotechnical institutions and practices which we call medicine. Even the most idle and useless of human activities - metaphysics - is taken over by particle accelerators. Is there any space or activity which is still purely human and which would help us define something like a human condition in the technologically and scientifically enhanced world? Are science and technology still signs of human dignity, greatness and intelligence or do they mark our decline and end? How do we resist the anthropocentric bias implicated in these questions and should we rather try to define something like a posthuman condition in the age of science and technology which includes not only humans but also our new 'worldmates or as Donna Haraway calls them 'messmates'?

How do we connect or divide political issues of justice, from biological issues of evolution and technological issues of innovation? How are the natural processes of

evolution, the social processes of globalization and the general processes of negentropy in the universe linked together? We need to learn how to live together with our constantly transforming machines and new entities discovered by science and create new communities. We need to formulate new normative ideals and also pose new questions about our common future. Philosophy and art are simply probes into the new forms of interactions and networks between society, nature and technology. The emergent and hybrid effects of these misalliances force us to constantly reconsider and adapt our views of the society, evolution, nature but also philosophy and art. The only thing that remains constant in these processes is the critique of anthropocentrism and the search for new normative ideals. How can we formulate a normative ideal for a world in which new entities discovered by science and created by technology serve not only humans? They form their own new systems and even ecologies which are as complex as society and nature and which we cannot label as human constructions nor natural facts.

The results of these connections, interactions and misalliances between natural, social and all other systems create a hybrid and evolving unit that does not revolve around the humans and which can be describes as a postbiological arena. Does society still consist only of humans and is it still formed only by human relations? Do organisms consist only of organic matter, or are there other life forms? To understand the dynamic state of these complex and hybrid networks we need to develop new normative concepts that will surpass the limitations of anthropocentrism. This will bring greater sensitivity to complex and hybrid interactions, and anomalies that create new collectives and new versions of the 'common' corpus. Since we cannot know in advance what the form of this newly formed 'us' will be, we can only experiment. From the biological point of view, all multicellular organisms are actually hybrid communities of bacteria and different organisms rather than a well defined unity. A very interesting response to the whole issue of the relation between parts and a whole, cells and organisms, comes from Daniel Dennett (1994) and his provocative question which we can find in many of his works: 'Am I an organism, or a community, or both? I am both - and more.' What is this 'more' that resists any reduction? Do individuals and humans create a new body, or are we are simply a collective of bodies that cannot be subsumed under some superorganism? Can we answer at all to such a question at a time when it is ever more difficult to mark the boundaries of a unity and define what a part is and what a whole is? Daniel Dennett believes we can, so he brings this very interesting description of human agency which saves us from the faith in some superorganism:

We, unlike the cells that compose us, are not on ballistic trajectories; we are guided missiles, capable of altering course at any point, abandoning goals, switching allegiances, forming cabals and then betraying them, and so forth. For us, it is always decision time, and no consideration is alien to us, or a foregone conclusion. For this reason, we are constantly faced with social opportunities and dilemmas of the sort for which game theory provides the playing field and the rules of engagement. (Dennett 1994)

We have to hope that the agencies of other actors in our world are less militant than ours. It does not mean however they are nonexistent, or that they are simple and easily controllable. The posthuman condition is not a state or some definitive equilibrium, but only a constant experiment and search for new forms of networks between different and new entities in our universe. The simple rule is to accept all entities and actors as partners rather than labelling them as monsters and enemies or even slaves: no hierarchy and no divisions only an endless play of networks and new collectives which include more and more foreigners, parasites and other hard to define actors. The portraiture of a passing specie means also an appreciation of the hybrid and symbiotic forms and connections between humans and machines, politics and technology that we are witnessing. The imperfections and incompleteness of this complex and dynamic system are the rule rather than exception.

The universe does not start nor does it end with humans and to understand this we do not need any transcendental reason. In such a cosmopolitical universe we cannot have a universal law and goal but only processual and tactical decision making that changes in every concrete situation. The normative ideal of the cosmopolitical and posthuman order is a processual one. The goal is not to act according to the maxim of one's agency which can become a universal law for that agency. The cosmopolitical ideal is to act so that every situation stays unique and an unrepeatable chance for new decisions and negotiations between new and different agencies and actors

## References

Agamben, Giorgio. *Homo Sacer. Sovereign Power and Bare Life*. Meridian. Stanford, Calif.: Stanford University Press, 1998.

- *The Coming Community*. Theory out of Bounds V. 1. Minneapolis: University of Minnesota Press, 1993. Print.
- *The Open: Man and Animal*. Meridian, Crossing Aesthetics. Stanford, Calif.: Stanford University Press, 2004.

Bishop, Ryan, John Phillips, and Wei-Wei Yeo. *Beyond Description : Singapore Space Historicity*. The Architext Series. London; New York: Routledge, 2004. Print.

Burns, Timothy. *After History?: Francis Fukuyama and His Critics*. Lanham, Md.: Rowman and Littlefield, 1994.

Deleuze, Gilles, and Félix Guattari. *A Thousand Plateaus: Capitalism and Schizophrenia*. Minneapolis: University of Minnesota Press, 1987. Print.

- *Anti-Oedipus: Capitalism and Schizophrenia*. New York: Viking Press, 1977.

Dennett, Daniel. "E Pluribus Unum? Commentary on Wilson & Sober: Group Selection." *Behavioral and Brain Sciences* 17.4 (1994): 617-18 (2.07.2009)  
<<http://ase.tufts.edu/cogstud/papers/wilsonso.htm>>.

Esposito, Roberto. *Bíos : Biopolitics and Philosophy*. Posthumanities Series. Minneapolis: University of Minnesota Press, 2008. Print.

- *Communitas : The Origin and Destiny of Community*. Cultural Memory in the Present. Stanford, Calif.: Stanford University Press.

Foucault, Michel, et al. *Society Must Be Defended : Lectures at the Collège De France, 1975-76*. 1st Picador pbk. ed. New York: Picador, 2003.

Foucault, Michel, Paul Rabinow, and Nikolas S. Rose. *The Essential Foucault : Selections from Essential Works of Foucault, 1954-1984*. New York: New Press, 2003.

Foucault, Michel, Michel Senellart, and Collège de France. *The Birth of Biopolitics : Lectures at the Collège De France, 1978-79*. Basingstoke [England]; New York: Palgrave Macmillan, 2008.

Foucault, Michel, Michel Senellart, and Arnold I. Davidson. *Security, Territory, Population : Lectures at the Collège De France, 1977-1978*. Houndmills,

Basingstoke, Hampshire ; New York: Palgrave Macmillan, 2007.

Fukuyama, Francis. *Our Posthuman Future : Consequences of the Biotechnology Revolution*. London: Profile Books, 2002.

-*The End of History and the Last Man*. 1st Free Press trade pbk. ed. New York: Free Press, 2006.

Gottweis, Herbert, Brian Salter, and Cathy Waldby. *The Global Politics of Human Embryonic Stem Cell Science : Regenerative Medicine in Transition*. Health, Technology, and Society. Basingstoke [England]; New York: Palgrave Macmillan, 2009.

Haraway, Donna Jeanne. *When Species Meet*. Posthumanities 3. Minneapolis: University of Minnesota Press, 2008.

Kac, Eduardo. *Signs of Life : Bio Art and Beyond*. Leonardo. Cambridge, Mass.: MIT Press, 2007.

- *Telepresence & Bio Art : Networking Humans, Rabbits & Robots*. Studies in Literature and Science. Ann Arbor: University of Michigan Press, 2005. Print.

Kac, Eduardo, et al. *Eduardo Kac : Telepresence, Biotelematics, Transgenic Art*. Ed. no. 6. ed. [Maribor, Slovenia]: Association for Culture and Education, KIBLA Multimedia Centre, 2000.

Landecker, Hannah. *Culturing Life: How Cells Became Technologies*. Cambridge, Mass.: Harvard University Press, 2007.

Langwith, Jacqueline. *Stem Cells*. Opposing Viewpoints Series. Detroit: Greenhaven Press, 2007.

Latour, Bruno. *Politics of Nature: How to Bring the Sciences into Democracy*. Cambridge, Mass.: Harvard University Press, 2004. Print.

---. *We Have Never Been Modern*. Cambridge, Mass.: Harvard University Press, 1993.

Margulis, Lynn. *Gaia to Microcosm*. Dubuque, IA: Kendall/Hunt Pub., 1996.

Margulis, Lynn, and Karlene V. Schwartz. *Five Kingdoms: An Illustrated Guide to the Phyla of Life on Earth*. San Francisco: W.H. Freeman, 1982.

Max-Planck-Institut für Wissenschaftsgeschichte. *Experimental Cultures : Configurations between Science, Art, and Technology, 1830-1950: Conference, Berlin 7-9 December 2001*. Preprint,. Berlin: Max-Planck-Institut für Wissenschaftsgeschichte, 2002.

Ong, Aihwa. *Neoliberalism as Exception: Mutations in Citizenship and Sovereignty*. Durham [N.C.]: Duke University Press, 2006.

Ong, Aihwa, and Stephen J. Collier. *Global Assemblages: Technology, Politics, and Ethics as Anthropological Problems*. Malden, MA: Blackwell Publishing, 2005.

Ong, Aihwa, and Michael G. Peletz. *Bewitching Women, Pious Men: Gender and Body Politics in Southeast Asia*. Berkeley: University of California Press, 1995.

Rose, Nikolas. *The Politics of Life Itself: Biomedicine, Power, and Subjectivity in the Twenty-First Century*. Princeton, NJ: Princeton University Press, 2006.

Rose, Nikolas S. *Governing the Soul: The Shaping of the Private Self*. London ; New York: Routledge, 1990.

- *Inventing Our Selves: Psychology, Power, and Personhood*. Cambridge Studies in the History of Psychology. Cambridge, England; New York: Cambridge University Press, 1996.

- *Powers of Freedom: Reframing Political Thought*. Cambridge, United Kingdom; New York, NY: Cambridge University Press, 1999.

Shannon, Thomas A. *Genetics: Science, Ethics, and Public Policy: A Reader*. Readings in Bioethics. Lanham, Md.: Rowman & Littlefield Publishers, Inc., 2005.

Waldby, Cathy. *Aids and the Body Politic: Biomedicine and Sexual Difference*. Writing Corporealities. London; New York: Routledge, 1996.

Waldby, Cathy, and Robert Mitchell. *Tissue Economies: Blood, Organs, and Cell Lines in Late Capitalism*. Science and Cultural Theory. Durham [N.C.]: Duke University Press, 2006.