

Glimpses of humanity

in Greg Egan's science fiction

Introduction

Since the birth of cybernetics and molecular biology, the progress of science and technology seems to have taken a new face : from now on it appears possible for human beings not only to intervene on external nature, as they have done from the emergence of agriculture to the control of atomic energy, but also to intervene directly on themselves. Facing the extraordinary potentialities of new sciences and technics which may be foreseen since the end of world war II, the question raised is not only about the world humanity wants to live in, but also about the kind of persons human beings want to be in the future. But what do we mean by humanity ? A problem is raised from the simple fact that the term is polysemous. In the first place, it denotes a set of individuals presenting a certain number of common characteristics. This is humanity as mankind or human race. But « humanity » also holds for the concept which applies precisely to this set of characteristics ; it also designates the quality of being human. Humanity then is what is common to all human beings. This first attempt to reach a definition of humanity falls short immediately because of its circularity.

We must then try to consider things another way and begin to clarify one of these two meanings of humanity. But there also, the solution is not obvious. If we first try to determine what this concept of humanity means, we are confronted with a multitude of definitions, either intuitive or philosophical, of which none seem to have gained universal acceptance: « Man is a political animal » or « Man is a talking animal » already suggested Aristotles. Man is the animal who transforms nature by technology. Man is a cultural, a conscious, a moral being. Man is defined by his disposition for freedom, etc.

Maybe we should give up the purely conceptual approach and rely on intuitive evidence : we know how to recognize a man when we see one, even if we are not able to agree on the concept. But while today it is not difficult to say what humanity is in an extensive sense, if we go back to the first question we asked: what do we want to be ? How will mankind choose to deal with the technologies of personal transformation it may control soon ?, then we are confronted with

uncertainties and doubts. How can we answer this question when even for oneself, one does not know how to answer it, and for many questions of lesser importance, even a beginning of agreement is unattainable? Members of Bioethics committees who are confronted day after day with the consequences of radically new medical techniques and dawning biotechnologies know that very well. Science fiction writers also encounter these questions and problems and they explore them with their own method of speculative fiction. By imagining possibilities at the limits of contemporary sciences and techniques, they tackle these questions on the nature of human beings and their desires by fictional experiments. Of course, this is not the case of all science fiction, but it is certainly one of its main regions. And in this area, Greg Egan appears to be a particularly relevant author. Born in Perth (Australia) in 1961, he is indeed one of the most prominent and innovative science fiction writers since the beginning of the 1990s. He combines a dazzling speculative imagination with a meticulous care for scientific verisimilitude, yet he never tells his stories for the sole sake of virtuosity. His goal is always to achieve a better understanding of what it means to be (and stay) human.

But another issue is raised by the word « humanity ». Indeed, it is not the same thing to be human and to be humane. As « human » refers to a certain living species as opposed to animals, divine beings, or machines, « humane » on the contrary refers to a set of characteristics like kindness, mercy, sympathy, etc. Human beings may be humane but they may also be inhumane. What is then the relationship between these two notions ? And what is the most valuable, being human or humane ? Now the dialectics between humanity as humanness and humanity as humaneness is a recurring theme of science fiction. Thus in Asimov's Robots stories, one of the main issues is whether positronic robots, bound as they are by the laws of robotics, are not more humane than human beings ?

Must humanity be defined only by its material components ? For example, can humanity be defined by its genome ? What do we do if some other beings prove themselves to be more humane and maybe more human than natural human beings ? This issue is also raised in the movie *Blade Runner* directed by Ridley Scott. Yet the question brought up in most of Greg Egan's stories is not about non-human beings and human ones. His focus remains on human beings only,

and imagining all sorts of modifications, he asks questions about the humanity of the human beings : what can be changed and still leave them human ? Under what conditions do human beings remain humane ? Is there a criterium of humanity ?

I. Alterations of the human being-in-the-world

Technology has offered man the possibility to free himself from the constraints of nature, or rather, as would say Bacon, to command to nature by obeying it. Greg Egan imagines that man will soon develop technics which will allow him to radically modify his being-in-the-world: alteration of his perceptions, modification of the partition of the species into two sexes. Man could be soon in position to change all that natural evolution has elaborated in millions of years, by operations that take a few minutes or a few hours. If we can thoroughly change our perception of the world, if we can escape the division of sexes, if we can escape death, will the human still be the human ?

A. Modification of the division of the species into two sexes

1. Paternity reinvented?

The most evident natural constraint imposed by the sexuation of the human species is that only women can bear children. In « The Cutie », Greg Egan evokes the possibility that one day men could also do it.

2. Gender migration in *Distress*

Greg Egan imagines in *Distress* that people can choose to migrate from one gender to another.

B. Alteration of the human-world interface

1. Retinal symbionts

p. 6 « Others used retinal symbionts to translate IR into visible light, their eyes flashing vampire red in the shadows ».

2. body symbionts

2.1 Bioluminescent symbionts

2.2 Scent camouflage symbionts

p. 15 « My own scent was camouflaged ; symbionts in my sweat glands were digesting all the characteristic molecules. »

3. White knights

p. 7 « Stem cells in the bone marrow infected with Mother – an engineered retrovirus – gave rise to something halfway between an embryonic neuron and a white blood cell. »

4. engineered viruses and modified immune systems

p. 15 The narrator : « The lymph nodes in my neck and groin pulsed with heat, savage but reassuring ; my modified immune system was dealing with El Nido's viral onslaught by generating thousands of new killer T-cell clones *en masse*, rather than waiting for a cautious antigen-mediated response.»

5. Modification of the genetic code

Ned Landers in *Distress* transforms his whole metabolism so as to survive in any conditions. But he has a more ambitious goal :

p.19 « DNA and RNA can be manufactured with totally novel chemistry – with non-standard base pairs to take the place of the normal ones. A new alphabet for the genetic code : instead of guanine with cytosine, adenine and thymine – instead of G with C, A with T – you can have X with Y, W with Z. »

C. Defeating death ?

1. Post-mortem revival

Greg Egan imagines, at the beginning of *Distress*, that temporary post-mortem revivals are possible.

2. Cloning

- « The caress »
- « The Extra »

3. Copies (cf. II)

II. Who am I ? Personal identity at stake

A. Priming

B. Brain-rewiring

1. Axiomatic implants

Greg Egan pictures a humanity who has an almost infinite power on itself and who strives nonetheless to keep its life meaningful. But can this hope be fulfilled when all in man can be changed including his beliefs and desires ?

First aspect : Human beings are moved by a variety of desires which may sometimes come into conflict with one another. The products that Greg Egan imagines allow individuals to strengthen some of them and remove uncertainty. Indeed indecision is, at the same time, the greatest evil and the greatest good : the source of intelligence, it is also the main cause of moral suffering. That is why when an individual can free himself from doubt, he usually shows great relief. The dialectics of uncertainty appear in full light with the idea of axiomatic implants. The short story «Axiomatic» stages a very interesting debate on the question of free-will.

2. Loyalty mods

In the short story « Axiomatic » I have just evoked, Mark Carver wilfully rewires his brain to put an end to his indecision. In the novel *Quarantine*, on the contrary, Nick Stavrianos has it rewired against his will. The effect of the loyalty mod is that he is now utterly convinced that all which matters now for him is the Ensemble:

p.87 "I have no idea what the Ensemble is - except that it's the most important thing in my life."

3. Grey Knights

In « Chaff », Greg Egan takes another step in exploring the paradoxes raised by the imaginary technics of brain-rewiring. He stages a brilliant biochemist, Guillermo Largo, who has created some biochemical agents, the Grey Knights, that can modify at will any structure of the brain: « They grant the part of us that was fixed, that was tied to « human nature », the chance to be as different from person to person as a lifetime's worth of memories. »

C. brain-scanning and Copies

Another source of reflection on self-manipulation comes from the idea that man could scan human brains and create perfect digital Copies of persons. Instead of disappearing forever when they die, people could then choose to survive as Copies. This assumption made, Greg Egan imagines different applications of this technology as well as the problems that could appear.

1. To be scanned or to be not

What does it mean to be Copied? Is this a genuine way of escaping death ? Or is it mere illusion to think that a man can continue to live his life in a place other than his organic body ? Greg Egan stages several characters who consider that living as a Copy is not worthwhile.

2. Partial digitization of consciousness

We are now moving to a theme Greg Egan deals with on several occasions, namely the problem of incomplete imitation of consciousness. If we assume that it is possible to produce a computable model of a consciousness, the question is at what stage of development does this consciousness appear ?

Second question : when a Copy is built, there must be a moment when the consciousness of this Copy appears in the computer even though the whole person is not yet achieved. This is dealt with in « Transition Dreams ».

3. the Ndoli Device

Conclusion

What does it mean to be and stay human if human beings succeed one day in mastering different kinds of self-manipulation ? Is it possible to extract a definition of humanity from these tales?

Elements of a definition:

- « Yes, we're freaks ; but if we have a problem, it's that we're still far too human. »
- Human and humane