

MEDIA, MARS AND METAMORPHOSIS

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Part I

Media, Mars and Metamorphosis is the title of a remarkable open access e-book by Jeremy Hoyle. Hoyle is a former student, and at times zealous disciple, of [Francis Fukuyama](#). His work echoes and extends the concerns Fukuyama expressed in *Our Posthuman Future* for the status of human nature in the era of biotechnology and for the rights of the individual in a threatened liberal democracy.¹ Like Fukuyama, Hoyle considers himself to be a social philosopher, and he too is something of a populist. He has sought out three of the most recent and controversial experiments in biotechnology in order to dramatise his concerns, and each promises (or threatens) to change the meaning of human life. Hoyle has chosen open access publishing because, as Gary Hall points out in *Digitize This Book!*, it has the potential to reach a very wide audience while garnering feedback and creating a market for a subsequent paper publication: ‘the main priority of most academics is to have their research read by as many people as possible, in the hope, not only of receiving greater levels of feedback and recognition for their work, and thus an enhanced reputation, but also of having the biggest possible *impact* on future research, and perhaps even society’ (Hall, 2008: 46). However, the impact of Hoyle’s first draft was not quite what he had hoped for, and, indeed, expected. Of the three people he interviewed in connection with the experiments, two are currently suing him for defamation of character, and the third is still consulting her lawyer. On the advice of *his* lawyer, Hoyle has temporarily withdrawn the manuscript and its associated links – including a podcast, blog and short film on YouTube – from the web. Although he has sought to remove all evidence of his book, and although it was only posted for a brief period, I was able to read it, and can therefore offer the summary that follows.

Hoyle's chosen experiments incorporate bacteriology, immunology and what, in the service of rhyme rather than reason, we might, after Regis Debray, call mediology (for him, a materialist answer to semiology,² for me, merely a means of recognising the existence of a dynamic media ecology).³ The experiments occupy different spatial realms that, against the injunction of Karen Barad,⁴ Hoyle considers to be analogous: cosmic space, the interior space of the computer or another computational object, and bodily space at the boundary between self and other. They include:

1. An experiment designed to test for the presence of microbial life on Mars.

Early experiments were conducted during the Viking missions of 1976 and the results, though contested, were largely negative. However, the recent discovery of the presence of liquid water has strengthened the case for exobiology.

2. An experiment designed to induce tolerance, and therefore eliminate the need for immunosuppressant drugs, in facial transplant surgery

Immunosuppressant drug regimes are harsh and associated with infections and diseases such as cancer. Clinically (if not socially and psychologically) tolerance of the donor tissue can be induced by introducing donor stem cells into the recipient's immune system.

3. A user-based experiment designed to test the efficacy of, and future prospects for, intelligent media.⁵

Each experiment – and this is what makes Hoyle's book remarkable – has already been deemed successful, so the following inventions, discoveries and innovations are therefore highlighted:

- 1. The discovery of a Martian microbe with characteristics similar to that of green sulphur bacteria. Green sulphur bacteria often form in aggregates around an unknown, colourless, single-cell bacteria (Pfennig in Staley *et al.*, 1989), which in this case resembles a rapidly mutating organism with some structural similarities to *E. coli*.**
- 2. The induction of tolerance (Rossini, *et al.*, 1999) in facial transplant surgery, leading to the establishment of (temporary) haematopoietic chimerism and a 'third face', or hybrid identity.**

3. **The invention of intelligent media, incorporating computerised embodied conversational agents (Maes, 1996) and speech-based networked intelligence embedded into everyday objects such as tables, chairs, toasters and so on.⁶**

Each experiment is reported in the form of a personal reminiscence. Three individuals therefore present three separate accounts of their experience.

Notes

¹ Fukuyama insists that, contrary to what philosophers, feminists and other 'constructionists' maintain, 'human nature exists, is a meaningful concept, and has provided a stable continuity to our experience as a species' (2002: 7). He positions himself against any notion of posthumanism, and issues the warning that 'a [bio]technology powerful enough to reshape what we are will have possibly malign consequences for liberal democracy and the nature of politics itself' (2002: 7). Fukuyama's biological essentialism therefore functions as a form of constraint not only on ontological possibility but also on political possibility: precisely on the possibility of a politics not based on the secure category of the human.

² For Debray, mediology is 'the discipline that treats of the higher social functions in their relations with the technical structures of transmission' (1996: 11). His neo-Marxist thesis is that 'the symbolic productions of society at a given instant t cannot be explained independently of the technologies of memory in use at the same instant. This is to say that a dynamics of thought is not separable from a physics of traces' (1996: 11).

³ For Matthew Fuller, a media ecology (as well as a book on media ecology) is composed of relational rather than static entities:

the resistance of standard objects to change, occurring through the dimensions of relationality by which they are formed and which they make, is itself something to be recognized as a force. Not everything can be 'turned to account'. The standard object is the concrete shadow of the potentiality of which it embodies and mobilizes a part. (2005: 170)

⁴ In the introduction to *Meeting the Universe Halfway* Barad demonstrates an uncompromising approach to analogical reasoning – ‘reasoning by analogy can easily lead one astray’ (2007: 23) – in a twenty page attack on ‘an engaging, clever, and beautifully written play’ (5) by Michael Frayn. *Copenhagen* explores the analogy between physical and psychological uncertainty, but the outcome, for Barad, is too uncertain:

As with many such attempts to discern the implications of quantum mechanics on the basis of mere analogies, the alleged implications that are drawn, such as the assertion that our knowledge of ourselves and of others is necessarily limited, ultimately do not depend in any deep way on understanding the lessons of quantum physics. (18)

⁵ See <http://www.intelligent-media.org>

⁶ Intelligent media, like ambient intelligence, is a brand name for ubiquitous computing. The aim is to make ‘invisible, intelligent information systems’ form ‘a natural part of our everyday lives’ (Marzano & Aarts, 2003: 8).

Part II

1. Lou is an eighty-year-old microbiologist based in the US. He and his team won a contract with NASA to design and implement an experiment to test for the presence of microbial life on Mars. A sample taken from stagnant liquid water was recently returned to earth for analysis. Lou presents his findings in a paper – ‘*Pelodictyon clathratiforme* related organism in Martian subsoil’ – that includes a drawing and classification of the new organism. He is interviewed by Hoyle while preparing the paper, after having presented it at a conference. The interview was released as a podcast – ‘Little green microbe’ – and includes a live video of the bacteria mutating. Other delegates ridiculed his claim and attacked his reputation. Humiliated and angry, Lou tells Hoyle about the dilemma confronting him: life on Mars exists, but it may never be possible to prove this through experimentation and documentation alone. The history of science and popular culture does of course demonstrate a huge desire for, and denial of, the existence of extraterrestrial life. The existence of life on Mars has been claimed and refuted (including by NASA)

before (see Robert Markley's *Dying Planet: Mars in Science and the Imagination*). Lou concludes that the only way for him to fulfil his otherwise thwarted life's work is to release the organism into the environment where it can take hold, evolve and be witnessed by all. For additional insurance and in case the external conditions on earth prove to be too hostile, Lou decides to ingest the Martian bacteria. His own physiology thereby comes to constitute a significant part of his evidence.

2. Hannah is a twenty-year-old student living in London. She was travelling to college by tube one morning in July 2005. The tube was crowded but she had a seat. She heard a commotion behind her and, as she turned around, someone set off a bomb. Her story, presented in the form of a journal, alternates between events preceding and following her face transplant. Her writing is surprisingly detached, clinical and academic. She speaks of her feelings for the donor, and for the person who caused her disfigurement, through medical concepts of transplant tolerance and rejection. She carries on in this way up until the point where the inevitable temporality of her tolerance for the donor's face begins to be felt.¹ This awful realisation shakes her from her dissociation and her account becomes more fraught, erratic and inconsistent. She becomes confused about the details of the event, including the date. Was it the 7th July when there were bombs on tubes which did go off, or 21st July when there were bombs on tubes which did not go off? Hoyle has followed Hannah's account since she started posting it as a blog linked to a trauma relief agency. He is one of many people, a number of them journalists, who have contacted her with questions and requests to meet. All such requests have been turned down on the advice of her analyst.

3. Hoyle's third case study concerns Hal. Hal is an out-of-work television actor in his late forties. He has had minor roles in soaps, but these have dried up. He is divorced, single, isolated and curmudgeonly. He once appeared on *Celebrity Big Brother*, although few people knew who he was, and he got voted out early because he was completely withdrawn and refused to join in any humiliating games. A Swedish research group, in association with the Scandinavian equivalent of *Living TV*, advertised for a subject – middle-aged, luddite, unknown locally but with some media experience – to take part in a filmed experiment in which a person who is generally ignorant of, or hostile toward, technological gadgets would live in a 'smart house' for eight weeks. The aim was to see if even the most recalcitrant 'user' could learn to live with intelligent

media. The rules stated that people could visit Hal, but that he could not go out. No-one visited during his time in the house. Various cameras, sensors, speech recognition devices and so on recorded his every encounter with a wide variety of electronic artefacts, and especially with his own, solicitous personalised conversational agent – Dave. Both ‘Hal’ and ‘Dave’ are pseudonyms (from *2001: A Space Odyssey*), given by the Scandinavians to protect identity and as an attempt at humour. Hal appeared live on reality TV in Sweden, but has since published his own account of his time in the smart house in an autobiographical book entitled *Soaps and Smart Screens: My Life in the Media*. This is currently being held in a warehouse until Hoyle’s legal matters are resolved, but it tells of his depression, general disillusionment with life and his preoccupation with how he drove away his family and friends. It details many fractious or plain hostile interactions which occurred in the house as everything around him – walls, tables, chairs and toilet – attempted to get to know him, and even establish an intimate (Marzano & Aarts, 2003) relationship with him. Hal resolutely lacks what Derrida calls hospitality (2000). But as his memories and everything to do with his past become increasingly embedded and animated within objects capable of speech, learning and adaptation, his hostility, or lack of hospitality, turns to pain, loneliness and a sharp sense of loss. Unable to cope with this, Hal walks out the house before he has completed his eight-week stay. Although he has gone, the cameras keep filming. When he views the film on YouTube some time later, he sees, or thinks he sees, that he has left rather more than traces of his life behind. Hoyle discusses the book and its mysterious conclusion with Hal.

Notes

¹ Tolerance and rejection are key terms used in the discourse of transplant surgery. They apply principally, but not exclusively, to the clinical relationship between donor and recipient. Clinical relations are, however, complicated by social and psychological factors. The first-hand transplant procedure was not successful and the hand was eventually removed following an episode of clinical rejection. However, the clinical rejection was a result of the fact that the recipient was not able to come to terms, psychologically, with the donor tissue and subsequently stopped taking the immunosuppressant drugs. Isabelle Dinoire, recipient of the world’s first face transplant, has so far endured bouts of clinical, psychological and (prior to surgery) social rejection. Following the

procedure, she reported that her (new) nose itched. Then she corrected herself, saying that, rather than her nose itching, she had a nose that itched. The long term prognosis for face transplant tolerance is still not known, but research into, for example, kidney transplants, suggests that the donor tissue has a lifespan of approximately ten years.

Part III

Hoyle, as editor, links these experiments and highlights common themes: the spatial analogies, the relationship (perhaps inseparable) between the events described and their mediation,¹ the lives involved and their telling as stories. Are these just stories about life-changing events, or are the accounts in themselves somehow life-changing? It is certainly hard not to be affected by them. Primarily though, Hoyle focuses on the apparent evolution of new hybrid identities: human-alien, self-other, human-machine (see, for example, Helmreich, 2009; Haraway, 2008; and Hayles, 1999). Hoyle, like Fukuyama, is drawn to headline grabbing events and opportunities. He considers himself to be something of a spokesman for ordinary people who are interested in the changing world around them, and who have legitimate concerns about the extent to which those changes are good or bad.² Although he recognises the importance of progress in scientific and technological research, Hoyle is concerned that a) these experiments have gone too far and crossed the line protecting the sanctity of human identity, b) told from a personal perspective, they may not have been as successful as they initially appeared to be, and c) the experiments have not necessarily produced anything new. The Martian microbe is essentially the same as its earth-based counterpart, the human body always rejects invasion, and research into intelligent media has learned the lesson from failed research into AI and is now overtly human-, not machine-centred. In other words, these experiments were dangerous but self-defeating. With the transgressive potential of science thus contained, the ubiquity of liberal humanism and democracy is assured, and Hoyle has the questionable privilege of rescuing Fukuyama's retracted declaration of the end of history³ when nothing and no-thing changes.

What is more, as he progresses through each account, Hoyle becomes increasingly sceptical about their authenticity. Time has now elapsed since Lou allegedly released and ingested the Martian microbe. Where are the follow-up experiments and observations?

Why the lack of public response? Where is the report on his current physiological condition? And why won't Hannah's analyst let her meet interviewers in person? Why are there no images of her face in the media? Finally, what exactly did Hal see on the film? Was it really some kind of automated doppelganger, or evidence of a stolen identity? This is surely preposterous, and the whole idea of intelligent media is in any case an oxymoron. In short, just as his interviewees struggled with their opposite numbers – the microbe, the alien tissue, the electronic artefacts – but let their stories enter the public realm anyway, so Hoyle goes ahead with his book, despite or because of his increasing unease. If Lou, Hannah and Hal's accounts are hoaxes, then they highlight the problem of transgression even more effectively. Hoyle's narration reaches this moralist, expedient but not illogical conclusion when events in his own life, and specifically health, take an unexpected turn. He is forced to add, in an endnote, that he has been afflicted by a terrible stomach bug, the relevant detail of which is that its issue – to the bemusement and concern of his doctors – is green. He is also convinced that in the course of writing this book his face has changed almost beyond recognition. At first he tried to put it down to stress, weight gain, sudden ageing (we all know that writing can take its toll). But he doesn't look stressed, fatter or older. He looks different. Worse still, and this has to be a delusion, a sign of sudden mental as well as physical deterioration, is that the usually inert objects which populate his home have started talking to him – the toilet, the mirror – and there seems to be no way of stopping them...

Notes

¹ See S. Kember & J. Zylinska (forthcoming) *Life after New Media*. Cambridge, Mass: The MIT Press.

² In this sense, Hoyle's book is reminiscent of David Rorvik's 1976 account of human cloning (*In His Image: The Cloning of a Man*), in which he uses human cloning as a symbol for the ill-effects of genetic engineering and specifically, rDNA.

³ In 1989, Fukuyama pronounced that because 'the major alternatives to liberal democracy had exhausted themselves', history was at an end. Ten years later, he changed his mind: 'we hadn't reached the end of history, he wrote, because we hadn't yet reached the end of science' (2002).

Conclusion

I have received some indirect assurance that this manuscript will be available again in due course, albeit in a slightly amended form. Hoyle's work is not merely of academic interest to me. His unfortunate experience serves as something of a cautionary tale. It has taught me, as an academic, as a theorist, to be wary of my own scepticism toward change. Are we, as critics, commentators, judges and sceptics, like Hoyle, too keen to deny, or to denounce as a hoax, any evidence of our own ontological metamorphoses? If you have ever read or heard anything about human cloning, you might well think so. And is our denial only the opposite of the creator or fantasist's desire? The gothic tradition, as I understand it, may have something to contribute here. It tells us a lot about denial, desire and projection. The double, the other, the monster is everything we fear to be, or desire to be, but do not dare. (I'm thinking, of course, of Victor Frankenstein's nameless namesake, or Gil Martin or William Wilson – all murderous, fratricidal.) But the double refuses to be a mere repository or externalisation of borderline human characteristics. It has a mind of its own, and to an extent, a life of its own, acquiring agency if not autonomy through relationality. It isn't all about us, in other words, and I think perhaps we can say the same about the process of mediation. As a temporal phenomenon, this exceeds representation, or our construction of it - indicating, at least, the performativity of the event, and at most the event as performativity. If, on some level, Hoyle knew this, he denied it at his own expense.

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