

# Beyond Black and Green: Children visioneering the future

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Chapter to be published as part of the *Future of Social Epistemology* edited Collection, Jim Collier (ed.), Rowman and Littlefield.

## Introduction

Steve Fuller (2013) has written extensively in recent times on what he foresees to be a 'ninety degree revolution' in politics away from the traditional left/right distinction towards a politics where proponents divide along heavenly or earthly orientations. Here, he describes 'upwinging Blacks' and 'downwinging Greens.' Such binaries are presented as schemata, yet the implication for Fuller's own theologically-imbued epistemology is clear. The Blacks are the future with their proactionary, risk-taking, embracing of science and technology, pushing humanity out of a stasis. The Greens are dismissed in the main as earthly luddites. Yet, Fuller (2013) presumes not only the evident status of these binaries, but states on this political shift, "so far I have portrayed this ideological rotation from the standpoint of a younger generation that accepts it as a given." The question at hand for this chapter is simply, is this the case? Do young people align more or less with these orientations and the presumed adherence to proactionary or precautionary approaches particularly with regard to science and technology? How do they 'visioneer' their futures? Visioneering is where young people both describe their vision of the future and posit the 'engineer' aspects of the neologism, to answer how we got there (McCray, 2012).

## Methodology

To investigate the visioneering activity of young people, the author and Steve Fuller have undertaken exploratory ethnographic and inductive work with groups of young people. The pattern of this burgeoning study has been to undertake semi-structured group interviews with groups of children aged 12 - 16 as part of existing events themed around science and technology. These group conversations utilise the settings, the props and the talks already given to open up discussion on what the future may hold and how they come to understand it in this way. In addition, to informal, digitally-recorded interviews, we devised visual methods creating a "postcards from the future wall" where participants describe a potential future and send it back to the present. The study is exploratory in scope and takes its ethical orientation from the new sociology of childhood which places emphasis on the participatory and agential focus of work with children and young people (Jenks, 2004; James and Prout, 1990). The interpretive lens adopted takes children and young people actors in their own right, as meaning-makers, albeit enmeshed in temporal conditions not of their own making.

1 The small snapshot of data provided here is taken from an event whereby over 75  
2 children interacted with us either in group conversations or through utilising the  
3 “postcards from the future” wall. We have accumulated over 6 hours of group data  
4 from the event, so all that can be presented here are the very initial themes that  
5 punctuated the day. Interestingly, in Fuller’s schemata themes were predominantly  
6 ‘green’ rather than ‘black.’ In the main groups were concerned with near-future  
7 visioning within their lifetime and placed emphasis on the Anthropocene over the  
8 heavens.

9 Two group discussions are presented here as crudely encompassing what at first  
10 glance appear to fall neatly into the ‘upwinger’/‘downwinger’, Black/Green  
11 classifications charted by Steve Fuller (2013) in a widely read piece for *Aeon*  
12 magazine. Both discussions focused on the kinds of existential threats that form the  
13 backbone of dystopian futures - one on the impacts of environmental disaster  
14 wrought by climate change, the other on the potential impacts of a range of common  
15 transhuman proclivities — augmentation, genetic engineering, and artificial  
16 intelligence. But they complicated Fuller’s undulating poles. In his original formulation  
17 he implies not only an earthly or celestial/trans orientation, but links such orientations  
18 to an embrace of or resistance to technologies. Thus, downwingers are cast  
19 somewhat disparagingly as resistant to transcendence of many kinds - preferring  
20 instead to cling to some Aristotelian essentialised human nature, the mark of which  
21 is our biological encasing on earth. They embody the precautionary principle  
22 enshrined in legislation following the atrocities committed in the twentieth century.

23 In contrast, upwingers receive much more favourable treatment as the bringers of  
24 Humanity 2.0, creatively destroying old mores to pull us out of our current ideological  
25 stasis. Upwingers are those which enact the proactionary principle (More, Fuller and  
26 Lipinska, 2014), they are ‘proactionaries’ taking calculated risks as part of a  
27 programme for human progress, where the capacity for progress is taken to define  
28 us as a species.

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### 30 **Technology to remake, remould and regrow the natural**

31 *Why do nature and technology have to be in competition, combat? Why don't*  
32 *we use what we know about biology to rebuild nature? I mean we can grow*  
33 *skin, map and alter our genetic code, grow modified crops, why not turn that*  
34 *to support the natural. It's all living.*

35 *Yeah. Why is it that environmental concerns are ignored or put back all the*  
36 *time? I mean it's pretty arrogant to think we can just up and leave on some*  
37 *imaginary spaceship, we are here and now.*

38 These quotes were taken from a group discussion with three fifteen year old girls.  
39 Two wanted to go into medicine and one was undecided although she was

1 interested in the interplay between “biology and engineering.” The three young  
2 women were all concerned about climate change and the impact of this not only on  
3 our natural environments but our geopolitical engagements with each other. One of  
4 the group told us,

5 *It's not just about companies and coal, it's about what the effect is of disasters*  
6 *in one part of the world on another. So I can see real issues with...like...*  
7 *environmental refugees because their villages have flooded or a tsunami has*  
8 *knocked out their industry.*

9 In the visioning work undertaken by young people on the day, such concerns  
10 about climate change, environmental crisis and poverty were not marked by a  
11 technological resistance. There was no talk of a quest for holism which can only be  
12 realised in ‘returning to nature’ and rejecting the malevolence that science has  
13 wrought. Indeed given the patriarchal narrative which has historically aligned women  
14 with nature to serve a politics of oppression, this is an important point to make.  
15 Plumwood points out (1997:19), “feminine ‘closeness to nature’ has hardly been a  
16 compliment”.

17 In fact in the accounts given by this group, these ‘downwingers’ were comfortable in  
18 harnessing the power of technology to protect the earth, to almost instigate a second  
19 natural flourishing, not dissimilar to some of the ambitions espoused by ‘Living  
20 Architect’ Rachel Armstrong (2010). When asked about the potential for synthetic  
21 biology one of the young women responded,

22 *You know, why not harness all that we know about biology and synthetic*  
23 *environments and use that to repair the planet? I just don't see why there's*  
24 *'man made' in one corner and 'the natural' in the other. And we just abandon*  
25 *nature.*

26 Their accounts shared commonalities with the rise of eco-modernity as an alternative  
27 to environmentalism. The ways in which the young women emphasised the human  
28 consequences of environmental degradation point not to an abandonment of science  
29 but rather its interspersed with reflexive modernisation. That is under  
30 ecomodernism, “science should be demonopolised and democratised and redirected  
31 toward a social rationality” (Bäckstrand, 2004:700). Befitting such a humanity-  
32 oriented greenness, they were not afraid to make a political case for living differently;  
33 this was a rarity as the data collated so far indicated an absence the role of the state  
34 in these future dystopias:

35 *You've got the government to do more, I mean, people keep saying it's going*  
36 *to take a long time but if you don't start you never finish. If you start now we'll*  
37 *be done in 15-20 years. We need scientists to get into politics, they have the*  
38 *knowledge, if they go into politics they can spread that knowledge. They need*  
39 *to stop being scared, their insecurity is less important than what's going on in*  
40 *the world. They need to stop thinking of themselves and think about all the*

1           *people that would benefit. People are too selfish to think about the bigger*  
2           *problems.*

3 Those young people who were passionately concerned about climate change  
4 described a human-centred rather than geo-centred world; there was no mention of  
5 animal sentience and the bestowing of rights to non-human creatures. In the group  
6 discussion where downwinging played a central role, the young women making the  
7 case for climate-interventionism seemed to be making it on a vitalistic rather than  
8 Darwinian premise. Such a vitalism may form a better entry point into the  
9 cartography being mapped by these young people, as their lives are complexly  
10 mediated by the blurring of the body with technology, the ecological with the  
11 manufactured. Their sophistication seemed to contest the Green/Black binary by  
12 refusing to oppose nature to culture, environment to society, art to science. The  
13 creative approach to sustainability, of utilising technology to remake the natural  
14 undermines the sharp distinction between 'black and green' as somehow indicative  
15 of a proactionary or precautionary stance to the science and technology.

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## 18 **Embodying risk: anti-fragility and resilience through gaming**

19           SF: So how do you see the future?

20           *Very dark really, things going down. Underdeveloped countries,*  
21           *pollution, resource crises...*

22           SF: You sound pessimistic about the future!

23           *Yeah I think there are a lot of big problems.*

24 Such dystopian visions emerged most readily in references to gaming which  
25 emerged as a dominant theme this group of young men. Notable mention went to the  
26 cyberpunk-styled game *Deus Ex: Human Revolution* set in a near-dystopian  
27 future. *Human Revolution* tackles transhumanist themes through the eyes of the  
28 protagonist, an employee of a biochemical human augmentation firm, as he  
29 considers whether humanity's reach has exceeded its grasp. Its societal setting is  
30 cataclysmic, corporations have greater power than states, corruption is rife and  
31 rebellion put down with brutal violence.

32           *I play a game set in the future, Deus Ex: Human Revolution. There's global*  
33           *terrorism and someone releases a virus. People are getting synthetic arms,*  
34           *nano technology all kind of augmentation. It'll happen, you know. I've seen*  
35           *these things in the news already, well something like that. The thing is, if we*  
36           *do get these augmentations then it's going to be a taboo to be normal. That is*

1            *a realistic possibility. Also, in the game you need money or access to*  
2            *resources, there's no NHS you know. So only rich people benefit.*

3 Another game mentioned was the post-apocalyptic game *Fall Out*.

4            *I think a possible future is like Fall Out because of wars and resource*  
5            *shortages.*

6            SF: Do you really think nuclear war is a possibility?

7            *Definitely. Nuclear war is a possibility for the future; it'll just be started over*  
8            *different issues than before. Like Russia invaded Georgia and no one cared,*  
9            *militias are growing in Crimea. In the future these little skirmishes become*  
10           *more important as resources shrink.*

11 These young men spoke of the gaming experience as a tool to furnish their  
12 visioning activity alongside their interest in the practice of formal scientific enquiry  
13 and their own personal hopes and ambitions. The gaming activity offered up a  
14 language and a set of tests – to consider difficult ‘what if’ scenarios. It was as though  
15 the practice of gaming enabled a relationship with risk and the ethics of risk to be  
16 contemplated and explored. It offered a visceral window into visioning practice as  
17 gaming was described as something experienced and embodied not merely thought  
18 or seen.

19 Qvortrup (2003) uses the concept “hypercomplex society” to describe how digital 2.0  
20 communication technologies enmesh the local intimately with the global. In this  
21 hypercomplex society culture becomes, according to Poster (2004), a heady mix of  
22 multiple meanings which young people seem to negotiate, from the early analysis of  
23 our findings, with a great deal of ease. The interaction of mobility with information,  
24 social movements with geographic space through the politics of the hashtag proffers  
25 a very intimate yet global hypercomplex society. The four fourteen year old boys  
26 considered the consequences of flooding in Bangladesh, the fall out of genetic  
27 experimentation and the ethics of epidemic through their avatared prism of gaming  
28 through near-future contexts provided by *Deus Ex: Human Revolution*. Global  
29 themes experience locally. Whilst such visions have been presented as evidence of  
30 a dystopian generation, weary already with the atrocities and unfairness of the world,  
31 perhaps these themes are present in accounts because the world reaches into and  
32 mediates so many spaces experienced by young people. Moreover, they reach back.  
33 From smart phones, to Second Life, twitter to rolling 24 hour news there is a degree  
34 of ‘hyperreality’ (Baudrillard, 1983) in the visioning accounts presented to us. The  
35 four young men in this group all owned smart phones and tablets, two had twitter  
36 accounts and all were using online apps and platforms to interact with friends and  
37 share information across time and space. One told me, “I could not live without it  
38 [smart phone]. So much of my life is on it and through it.” In the case of many  
39 participants engaged with in this session, information and communication  
40 technologies have become “arenas for social experience” (Stone, 1995:15). In this

1 regard, the Baudrillardian hyperreality (1983:11) of distractive symbols and codes  
2 also holds the potential for extension of the self into the world. This interpellation  
3 may be enabled young people to equip themselves with cognitive and experiential  
4 tools to understand and experience risky visions under terms of relative safety.

5 It is in this interactive reaching in and out that the duality of the 'real' and 'virtual'  
6 begins to disintegrate, as Lévy put it (1998:23), "Consider the simple and misleading  
7 opposition between the real and the virtual." The dystopian experiences navigated  
8 through gaming held corporeal significance within the hyperreality, one of the  
9 participants simply stated,

10 *You feel it as you get used to being him [Adam Jenson - protagonist]. The*  
11 *noise of it, it like speeds your heart rate up, you know something's going to*  
12 *happen and you know you need to respond. Fight or flight isn't it?*

13 Thus, it would be erroneous to posit a neat distinction between an embodied  
14 'present' body and a disembodied, gaming body. Rather, gaming offers scope to  
15 experiment with the limits and dimensions of the self, including material and  
16 corporeal sensations.

17 Increasingly, sophisticated interactive gaming cultures enable transgression and  
18 transmutation of the self and body through visioning settings and  
19 experiences. Risk can be felt, experienced, mitigated and accelerated, opening up  
20 new worlds of cognitive consideration and vision. The expansion of experience  
21 encountered through digital worlds is supportive of Ong's (1982) argument that the  
22 appropriation of new forms of expression alters the very horizons for human thought  
23 and cognition. Here, the boys' use of gaming enables them to work through in a  
24 pseudo-embodied sense, alternate conceptualisation of the future and their attitudes  
25 toward it. In this regard, perhaps Fuller and Lipinska's (2014) call for a 'proactionary'  
26 imperative for public policy could find utility in gaming cultures as sites for trial and  
27 error, risk taking and risk making. Such a programme would take the idea of the  
28 'cyborg citizen' quite seriously (Gray, 2001) as young people are encouraged to take  
29 risks as part of a dual programme of 'anti-fragility' and inoculation. With regard to  
30 children and young people in particular, we can only understand risk in relation to  
31 resilience (Ungar, 2011; Daniel, 2003). Bolstering resilience through exposure to  
32 managed risk has been put forward as a method for supporting the adaptive quality  
33 of resilience in young people (Empson and Nabuzoka, 2004). Addressing resilience  
34 in young people Daniel (2003:7) describes, "Resilience is not simply an absence of  
35 psychological symptoms despite having experienced adversity, it is the possession  
36 of a positive adaptive ability that enables a person to feel competent despite risky  
37 living conditions." Masten *et al* (1990:426) defined resilience in children as, "the  
38 process of, capacity for, or outcome of successful adaptation despite challenging or  
39 threatening circumstances." Thus it is not the absence of risk that undermines  
40 resilience, but the managed exposure to and successful negotiation of the  
41 encounter. Here Taleb's (2012) concept of 'anti-fragility' may help us to understand

1 the utility of visioning activity through gaming culture. In Taleb's  
2 conceptualisation, the 'anti-fragile' agent does not merely withstand challenge as it  
3 arises, she seeks to improve her current condition as the environment changes,  
4 without clinging to any preordained sense of normality. The anti-fragile agent  
5 engages in both spread-betting - ensuring multiple options are covered - and  
6 visioning, exploring the action and consequences of routes taken and not taken.  
7 The inoculation approach encompassed in idea of 'anti-fragility' (Taleb, 2012)  
8 captures the active conceptualisation of resilience as adaptive and learnable quality.

9 In addressing Fuller and Lipinska's (2014) demand for a policy programme  
10 supportive of risk taking in a risk anxious culture epitomised by fears about and for  
11 young people, digital spaces may provide a test case. In the sense of a programme  
12 for proaction, gaming enables a vicarious yet embodied engagement with the  
13 experience of risk-taking without the fear of existential precarity. Avatars become  
14 less a representation, a symbolic extension of the digital self and more a site for  
15 potential embodiment, particularly as gaming culture and technology advances to  
16 become still more corporeal.

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## 18 **Conclusion**

19 The visioning work of these young people rejects the kind of political generational  
20 talk as filibuster arguing instead that, "we need to think differently in order to live  
21 differently" and "more scientists need to get into politics." Their accounts challenge  
22 common kinds of epistemological boundary work, the policing of the possible from  
23 the impossible, by collapsing the now with the almost-now, the existent with the  
24 becoming. In this regard, whether exploring the scope of synthetic biology to literally  
25 rebuild nature, or considering geopolitical manoeuvres in cyber space, the accounts  
26 of young people indicate a sympathy with Haraway's "natureculture" (2003). In this  
27 vein, young people as digital natives and cyborg citizens in-the-making denote  
28 Turkle's (1995:21), "transgressive mixture of biology, technology, and code." In  
29 talking about their experiences in the social realm of gaming they consider  
30 alternative dystopian futures and confront technological advances within an ethical  
31 and social framework. Some of the mechanics and poetics of this visioning are  
32 also akin to Kelly's (1979) "double-edged vision". This concept speaks of the power  
33 of hybridising lucid argument with political and personal passion leading to the  
34 creation of alternative social blueprints. In taking an agential focus to the visioning  
35 work of the young participants, the burgeoning data suggests the importance of  
36 epistemological humility in the subtleties of visioned potentialities; subtleties that  
37 challenge our neat constructions of Black and Green, Up and Down, Trans and Post-  
38 humanity.

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