



E3G

Lecture by John Ashton

# The End of Progress?

## Knowledge, Power and Will in the response to Climate Change

University of East Anglia, 11 September 2013

Tyndall Open Forum: Tyndall Assembly 2013 / UEA 50<sup>th</sup> Anniversary

Thomas Metzinger is a German philosopher, distinguished in his field of consciousness studies, based at the University of Mainz. You can find him on YouTube giving an excellent talk, explaining why in his view the self does not exist.

In a recent essay, Professor Metzinger wrote this:

*Conceived of as an intellectual challenge for humankind, the increasing threat arising from self-induced global warming clearly seems to exceed the present cognitive and emotional abilities of our species. This is the first truly global crisis, experienced by all human beings at the same time and in a single media space, and as we watch it unfold, it will also gradually change our image of ourselves, the conception humankind has of itself as a whole. I predict that during the next decades, we will increasingly experience ourselves as failing beings.*

“We will increasingly experience ourselves as failing beings”.

Reflect on that for a moment. Resist the temptation to deconstruct it intellectually. Let it brush against what you already feel about your future and your childrens’ future, your idea of where you have come from and where you are going. Does it reinforce or conflict with your deepest intuition?

Could I ask you to raise your hand if you broadly agree with Prof Metzinger? [80% of audience raise hands.]

So a big majority of you expect that our experience of the human condition will come to be dominated by a sense of failure.

Many, perhaps most human beings throughout my lifetime have clung to the belief; have even organized their lives around the belief, that progress is at least possible.

The very words we, or at least our elites, use to describe our condition seem to reflect this. We talk of “growing”, “developing”, economies that are somehow “emerging”, as if into sunlight. We certainly expect governments, in return for the taxes we pay, to improve the conditions within which we struggle as families and citizens for security, prosperity and fulfilment. Political parties seek our votes by promising to do just that. “Forward not back!” proclaimed New Labour in 2005.

They weren’t talking about the Second Law of Thermodynamics. [Audience silent] (That’s a physics joke by the way, about the Arrow of Time. There aren’t many physicists here tonight, I see).

“We are not standing still” we seem to be constantly telling ourselves, “we are on a journey, and it is an advance not a retreat”.

We think that by means of our choices, individually and collectively, we can make our lives better. We can offer our children a richer prospect than that faced by our own generation, as we in turn stand on the shoulders of our parents and theirs.

Underpinning this belief in progress is the notion that we can, at least if we make wise choices, have some control over our destiny, and we can use it to realize our dreams and banish our nightmares.

That applies particularly in societies like ours that emerged in their modern form from the crucible we call the Enlightenment.

In the process of becoming enlightened, we persuaded ourselves, didn’t we, that human beings are uniquely endowed with the gift of reason. We can use it to acquire knowledge. And by applying that knowledge we can gain an understanding of the problems we face. We can design solutions to those problems. And if we imbue our institutions with Enlightenment values, we can implement those solutions and enjoy better lives.

Of course none of that made us immune to folly. We could never entirely banish the spirit of Hobbes. And there have been retreats, both before and since the Enlightenment. Our great retreat story in the West is itself a product of that time. It has acquired, thanks to Gibbon, almost mythical significance in our imagination. Simplifying a complex reality it tells of the fall of Rome and the descent into what we refer to as the Dark Ages.

That phrase, the Dark Ages, induces one of those special shudders we can enjoy all the more because of course such a calamity could never befall us now. Nobody seriously expects our sun to set, for Enlightenment to yield, the shadows lengthening, to a new Endarkenment. Do they?

I think Thomas Metzinger does. What he seems to me be saying (and I apologize to him if this misrepresents his view in any way) is that we have stirred forces that are elemental, forces so powerful and inexorable that for the first time they will confound our belief in progress. They will halt our advance and throw it into reverse. As the scale and implications of that failure sink in, we will come to see it, to feel it, as an existential failure of a kind we can at the moment hardly comprehend. And it will be climate change and its consequences that will precipitate this.

But wait a moment.

Here we are in a Study Centre named after Tom Paine, whose entire life was dedicated to the idea of progress, for whom reason was as he put it “the most formidable weapon against errors of all kinds”.

We are celebrating the foundation of the University of East Anglia. All universities are surely monuments to progress and reason. UEA was a product of the great 1960s efflorescence of universities across our country, founded in the belief that if we could put more knowledge into more people we would make more progress.

And we are inaugurating the annual Assembly of the Tyndall Centre. There would be no point in the Tyndall Centre if its operations were not predicated on the conviction that reason informed by knowledge can drive an effective response to climate change. Long before the Tyndall Centre, UEA, home of Hubert Lamb and the Climate Research Unit, was a pioneer in the study of the climate and its impact on human affairs.

If ever there were a gathering of people from which one might expect unanimous rejection of the Metzinger prophesy it is surely this one.

But most of you, it turns out, agree with him.

Does our dependence on processes that are changing the climate really threaten the foundations of our self-belief? Are we really facing the end of progress?

It was nice while it lasted. But was that it?

I sometimes think we overcomplicate the question of climate change.

We need to deal with climate change because if we don't the stresses it unleashes could easily overwhelm our ability to manage them.

Stresses in the systems we rely on for food, water and energy form a single nexus, locked together and amplified by climate stress. If we cannot offer a prospect of food security, water security and energy security to the 10 billion or so people with whom we will soon be sharing our world, then it is likely to become an uncomfortable place for all of us.

As a diplomat I find it hard to see how in such circumstances we could maintain the impulse for cooperation in the face of common problems that has characterized much of the post-

war period and that is now more than ever essential. If we lose it, retreat will beckon, towards competition, fragmentation and ultimately chronic conflict.

The spirit of Hobbes is certainly stirring at the moment.

I remember even before the beginning of the Arab Spring sitting in the Foreign Office being warned by colleagues based in Damascus that the drought that started to affect Syria as early as 2006 was devastating rural livelihoods, destabilizing the social foundations of the Alawite regime, and taking the country even then towards a potentially horrific precipice.

So it would be a good idea to deal effectively with climate change: as John Holdren has put it to avoid what we cannot manage and manage what we cannot avoid.

The managing and the avoiding are different, though connected. Tonight I'm going to focus on the avoiding.

It is not difficult to set out what we need to do.

We need, within not much more than a generation, to build an energy system that is pretty much carbon neutral. Think of that as a "4+1" prospectus.

One: a carbon neutral electricity system. No more coal or gas for electricity, unless we lock away the resulting carbon emissions through carbon capture and storage.

Two: carbon neutral transport. No more liquid hydrocarbon fuels, at least of mineral origin, for vehicles, trains, ships and eventually planes.

Three: no more gas to heat our homes and buildings.

Four: carbon capture and storage with all those processes that are inherently carbon intensive: steel and other metals, petrochemicals and plastics, cement and so on.

That's all on the supply side of the economy. In addition - the "+1" - we will find this transition much easier if we act just as decisively on the demand side, by using energy in whatever form less wastefully than we do now.

What a remarkable prospect of industrial and economic renewal! As it proceeds we will be ushering in a new golden age of electricity, as we electrify transport and heating while generating, transmitting, storing and using electricity in smarter, more efficient ways. At other moments in history such a prospect would have unleashed a tidal wave of investment and innovation. It would have made the future look so bright.

But as Bob, and Corinne, and Kevin and many others in this room have long been pointing out, no economy has yet embarked on this transition at anything like the necessary scale and pace. It is certainly a daunting task. But just because we haven't done it, aren't doing it, does that mean we can't do it?

If we fail, it won't be through lack of knowledge. The community of which you are part has done an incredible job in assembling accessible knowledge across dozens of disciplines about the nature of this problem and the responses that are available. The Intergovernmental Panel on Climate Change is about to unleash the next instalment.

I can't incidentally mention the IPCC without paying tribute to Bob and his contribution to the understanding about climate change now available to anyone who has an appetite for it.

When I was just beginning my explorations, before I knew how climate diplomacy would take over my life, Bob more than once opened his door to me at the World Bank and answered my very basic questions with patience and generosity beyond the call of duty. I'm sure he had better things to do. I'll always be grateful for that and I know that many others have had the same experience.

What about technology? Is that where the blockage lies?

Actually if we fail it won't be because we lack technology either. On each of the 4+1 fronts, the technology we need in order to take the next steps is available or within reach.

If not technology what about capital? This will be an infrastructure transition and there is no shortage of capital to invest in the infrastructure we need. Yes, it will require a surge of new investment, but as Martin Wolf and many others have pointed out, here and in many other economies there could not be a better time, with interest rates at historic lows, to mobilize private capital for such a purpose.

Is there a shortage of policy? We know what policies can help us. Around the world we are experimenting with most of them, and they are in some places beginning to bring the low carbon economy to life. Here in the UK, while the economy as a whole has been in the doldrums the low carbon economy has been growing for several years now at close to 4% a year.

The failure we need to confront is not a failure of knowledge, technology, capital or policy. It is a failure of politics. Politics is the means by which societies make choices together. Climate change is about politics before it is about anything else.

The energy system lies at the heart of the modern economy. It has done at least since the industrial revolution, which was an energy revolution. If we reshape the energy system we will be reshaping the growth model. And as Marx might have noted, a new growth model means a new system of power relations around which the whole economy is organized.

Any project to rearrange power relations is, first and foremost a political struggle: a struggle between forces of incumbency and forces of change. This one will be as significant as any in history.

In this struggle things are not always as they seem. The exploiters and the exploited cannot always be distinguished one from another. There is no clearly visible dragon we can slay, no single enemy. Indeed the enemy in a sense is ourselves, trapped as we all are in the same

web of carbon dependency, for example through the tax revenues that pay for our public services, and the value of our savings and pensions.

And it does not help that not only is there a problem with our climate politics. In many countries - and pretty much all the liberal democracies - politics itself is in trouble. Trust and confidence have ebbed away from politicians, political parties, and institutions. Space is opening for populists and demagogues. Young people are turning their backs, dismayed at the failure of conventional politics to address what matters to them, including but by no means only climate change.

To win in this political struggle we really need a renewal of politics. But let's just for a moment assume that's going to happen and we can move forward on the basis of politics that works not politics that is broken.

Political struggles are about political will. That is not a mysterious force of nature, impervious to human design. Political will can be constructed and shaped. That's happening around us all the time. How can we summon the political will to deal effectively with climate change?

First, we need to make the choice we face much more explicit. It is not about the environment or about science and whether we believe what it tells us. Well, of course it is to an extent. But politically it is over the structure of the economy that the rubber hits the road. Do we want to build a low carbon economy, with all the adjustment that entails? It will be an effort but is it one that can inspire us? What kind of growth do we want and how can we secure it? What kind of jobs and infrastructure? How can we build competitiveness and resilience against shocks?

I recall during my time as a climate envoy getting involved in lots of Whitehall debates that involved a choice between low carbon and business as usual. These were always, when you stripped them down, about the structure of the economy and the growth model.

Political parties need to engage with climate change on those terms. And they need to connect this with their core stories, the defining stories they tell themselves and those they want to attract, about the role of the market and of public intervention, about the settlements between the generations and between different parts of our country, about fairness.

Second, we need to build coalitions to boost and maintain ambition. In any process of change the forces of incumbency start out in the strongest position.

So far the terms of debate has been dictated by what my friend and colleague Tom Burke calls the "climate makers" – those whose fortunes depend so much on the high carbon economy that they will fight to preserve it – often while protesting they accept the need to deal with climate change: we must just be "realistic" in how fast we can go, they sometimes say. Always be suspicious when you hear the word "realistic"!

The opportunity now is to bring together the “climate takers”, those on the front line of climate damage, together with those in the nascent low carbon industries who stand to gain from faster progress. There is a winning coalition waiting to be forged. Cities, which have an obvious interest in avoiding the unmanageable (just ask New Yorkers), those who live in the most vulnerable countries, and above all young people all have crucial parts to play.

Third, we need to understand the rhythms, the ebb and flow of this struggle.

The tide went out after Copenhagen. It went out a long way. Actually, it never went out quite as far in the public imagination as it did in that of self-absorbed political and media elites. But all the same the limits of the possible receded.

The tide is now turning. That means the next few years will be decisive in the struggle. Whoever catches the tide can win.

Events like Sandy and the drought in the US have continued to remind people that the problem itself never went away.

As the low carbon economy becomes real, people are beginning to see how we can grow it more quickly. Key technologies have come down their cost curves much faster than anyone expected, opening up the possibility of new, disruptive low carbon business models for example in the power sector.

The decision to aim for a new climax in the UN climate negotiations at Paris in 2015, preceded now by a Summit in New York a year from now, is another opportunity to boost momentum. We have now left “post-Copenhagen” and entered “pre-Paris”. The new IPCC report can dramatize that if it is communicated well.

That’s why, if you look carefully, the forces of incumbency, cloaking themselves in the language of realism, are on the march. It’s why in this country a push is under way to hollow out the Climate Change Act with its legally binding carbon budgets. The forces of high carbon business as usual have sensed that if they cannot prevail in the next two years the game may be up sooner than many realize.

And fourth, we need to ensure that the political choices we make have their roots in reality. Politics, even politics post Enlightenment, has not always shown a natural tendency to base its choices on reality. When reality is inconvenient, politics can be ingenious in finding ways to ignore it even while protesting the contrary. In the Bush Administration in the US, “reality-based politics” was reportedly a term of derision. “We make our own reality”, a member of the White House team told a reporter.

“Go, go, go”, said T S Eliot’s thrush in the rose garden at Burnt Norton, “human kind cannot bear too much reality”.

We have had lessons enough - not least in Europe in the last century - in the price we pay if we base our choices on something other than reality. But there is not much sign we have learned those lessons.

The climate project began as a knowledge-driven project. It is a huge accomplishment, your accomplishment that it got as far as it did in that form. A great contribution of the Tyndall Centre was to understand how important it is to work across disciplines, and to help show how this can be done. It was the knowledge you and your community produced and communicated that brought over 100 world leaders to Copenhagen.

Now the project can only be driven by politics. But that doesn't mean you can rest. It doesn't mean you can allow yourselves the luxury of standing apart from politics. Even that would be a political act, with political consequences.

Whether you like it or not you are part of politics, and only if you come to terms with that in how you conduct yourselves will your voice be properly heard. As a friend, one who is honoured by the chance to speak to you, it seems to me that as a community you are unsure, even confused, about how to do that, battered as you are by the storms you have had to endure, including here at UEA.

But if you want politics to base its choices on reality, your voice has to be properly heard and only you can ensure that it is. You are still on the front line.

Remember that knowledge and politics are different worlds, with different values, rules and languages.

When you say you are uncertain, you may mean that there is an error bar around the signal. What may be heard is that you aren't sure there is a signal at all. That's politics.

When someone publicly contests something you have said, you may respond with patience and integrity only to find that your interlocutor was not so much trying to get at the truth as to provoke you into sounding defensive, or into making a simple message seem more complicated. That's politics.

There is no such thing in politics as the objectivity that defines all serious scholarship. Politics is reflexive. The expression of any opinion affects the interplay of forces that will determine whether that opinion turns out to be correct. You say it, you take responsibility for how other people use it.

So whenever you express yourself in public you make yourself a player not a commentator. That's politics.

It's not just about who's right; it's about who's going to get their way.

Never exaggerate to get more attention or soften your messages because you are worried that others may think you are not being realistic – that word again. Call it as you see it. Of course, do that in simple and accessible language. But integrity comes first. If you lose it you cannot get it back and you damage your own credibility and help those who want to bend what you say for their purposes. That's politics.



I'm not saying you should all immediately pick up the phone to Jeremy Paxman and ask for a slot on Newsnight. But the disciplines and institutions to which you belong should invest far more than they do in the capacity to explain your findings strategically in ways that promote rather than inadvertently undermine all of us who want to ensure that the decisions we take as societies about climate reflect what you have learned about it, rather than some distorted view that serves another purpose.

There is a debate, to which many of you have contributed, about whether it is still possible to keep climate change within 2°C.

First, the language people use to talk about this really matters. It is not a goal. It is a threshold. It is the opinion that governments have collectively expressed, a political opinion informed by science, about where on a balance of probabilities dangerous climate change begins.

So if governments were to abandon or soften their focus on 2°C, they would have to explain why they now think the threshold is somewhere else. The first question about 2°C is not: "can we stay within the threshold?" but "is the threshold still where we said it was and if not why not?"

Second, on the question of whether we can stay within it, that is a question about the limits of the possible.

There is nothing more contested in politics, on climate or anything else, than the location of the limits of the possible. If you can get something ruled out as impossible you can get it off the table. And if as in this case it is a proxy for making a transformational effort rather than a marginal one, you can get transformation off the table.

Big prize – the biggest prize – if you want to block the climate effort.

So be very careful. There is the limit of the thermodynamically possible, and by extension what is possible in terms of technology, engineering and capital. That is a judgement based largely on analysis. That's where you have authority. And the analysis, I think, says that 2°C is still within reach in that sense - even if it would require a mobilization of effort at a scale much greater than we have so far achieved.

Then there is the limit of the politically possible. That's a political judgement. Politics belongs to all of us. An academic has no special standing in offering a political judgement on a question like this. You are as entitled as anyone to do so. But don't give the impression, or allow anyone else to give the impression, that your expert knowledge gives any special weight to your opinion. You may well need to correct explicitly against such an impression. It might suit the media to imply that your view does have special weight, for example to stir up a controversy and attract a bigger audience.

If you say it's too late for 2°C, you are helping those who are working to make sure that we really do leave it until it's too late. You are making it more likely that we will experience not only 2 but 4°C and beyond. That's politics.

One more point about 2°C.

The key question for societies and for governments is really “how much climate risk is it in the national interest to be exposed to”. Nowhere has that question even been clearly posed, let alone answered. I tried and failed during my time in the Foreign Office to get it in front of the National Security Council in the UK. There was too much internal resistance driven I suspect from the fear that this kind of high level focus on climate risk would generate pressure at the top for more ambition, or that it might trigger a more systemic approach - of course that’s exactly what we need - at the expense of Departmental power.

An area where Tyndall work is already making a valuable contribution, but where this could be stepped up, both in the substance and in its effective communication, is the elucidation of what a 4°C world might look like. The more compellingly we can talk about that, the easier it will be to mobilize the will to do better.

I know you will rise to these challenges, and the Tyndall Centre will be at the forefront. So here, on that premise, is what I think of Thomas Metzinger’s prophecy.

I think he’s right that this is an existential challenge.

I think he’s right that if we fail it will induce a sense of existential failure, one that we will feel in our hearts as much as in our heads. That will happen both in consequence of climate change itself and because it is a symptom of a bigger predicament. If we continue to behave as if what divides us is more important than what we have in common – to behave in other words as if we were not interdependent – we will never be able to come to terms with the interdependence we have created and from which we cannot now escape.

But that cuts both ways. If we succeed with climate change, we will be crossing a threshold of civilization as significant as any we have ever crossed, including the Enlightenment. That too will change our sense of ourselves. Human beings will have achieved for the first time a state of collective self-awareness as a species.

Where I think Metzinger is wrong, at least provisionally, at least if you play your part well, is in his implication that failure is inevitable. I even wonder if he should have allowed himself the detachment from which he takes this position. He too is a player not just a commentator – we all are.

We are endowed not only with reason but with will. It is not yet clear to me whether we will summon the will we need. What I am clear about is that we can. Success is still available. We can, and we have no choice but to try, because if we don’t it will be a betrayal of all that is best in ourselves. This is not a choice it is an imperative.

I have had the privilege in my work over the years on climate change of exploring it not only with natural and social scientists, with politicians and policymakers, with businesspeople, with diplomats, activists and scholars.

I have also had occasion to discuss climate change with those who are concerned not only with what we should do but more with who we are. With artists, psychotherapists, priests and mythographers. I've just had an excellent discussion here with a group of artists kindly convened by Corinne.

What strikes me is how often such people feel climate change and our apparent impotence in the face of it not as the political challenge I have described but as a wound in our breast. A wound that cannot heal, but without whose healing there can be no redemption, without whose healing we can never again be at peace with ourselves. Perhaps that is what Metzinger was feeling when he wrote that passage.

We see our character in the mirror of a world on which our image is now very large. The image has cracked the mirror. But then we look more closely and see the crack is not in the mirror at all, it is in us. We know in our hearts we need to repair it but like an addict we keep putting off the day.

Beside the entrance to Norwich cathedral is a statue of one of the most remarkable figures in pre-Enlightenment England. Around 640 years ago Dame Julian of Norwich wrote the first known book by a woman in the English language, her Revelations of Divine Love. It contains one of the most beautiful lines I know. It is a spiritual affirmation, not obviously relevant to our temporal destiny. But it bespeaks a condition of extraordinary serenity, a healing of the deepest wounds, wounds in the heart, cracks in the mirror.

If we do with your help pass the test with which climate change now confronts us, if we do heal the wound it has revealed, we will not find better words than Julian's to describe the condition we have attained. If we can still recognize her words when we have finished this endeavour we shall have confounded the Metzinger prophecy. "All shall be well" she wrote:

*All shall be well / and all shall be well / and all manner of things shall be well.*

**John Ashton**

**11 September 2013**