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hat a year! From the Brussels terror attacks to Brexit, from Zika to Trump, 2016 has been a challenging year. It also presented us with the deaths of Bowie, Prince and Cohen, Alan Rickman and Gene Wilder.

It's no wonder that many people can't wait to close the door on 2016.

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From everyone at AIPS and *AQ*: *Australian Quarterly* we wish you a happy Christmas, an exciting New Years, and a leisurely Summer.

We look forward to seeing you in 2017!

Grant Mills

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Indefinite Disinformation: The Political Capital of Fear

The arrival of the Tampa in Australian waters in 2001 marked a dramatic turning point in Australia's response to boat people. Judgment in the Tampa litigation was handed down at 2.15pm (Melbourne time) on 11 September 2001. Nine hours later the attack on America happened, and John Howard had a potent new political weapon.

ARTICLE BY: JULIAN BURNSIDE AO QC

uddenly there were no terrorists: only Muslim terrorists. And no boat people: only Muslim boat people. Suddenly, boat people were "illegals". And sud-

denly, we were persuaded to be mortally afraid of terrorism. Suddenly, fear and loathing were part of Australia's political dynamics.

But we are a complex country, full of contradictions. Ned Kelly – an Australian folk hero – was also a terrorist by our modern definition. Ian Jones' latest theory of Ned Kelly is that his murderous exploits were motivated by his wish to establish a

IMAGE: © Kate Ausburn - Flickr

Recently, the government flagged its intention to extend the use of control orders to children as young as 14.



republic in north-east Victoria. Laudable as that aim may have been, it had the ideological element needed to convert ordinary criminal conduct into a terrorist offence.

Reading the Jerilderie letter gives a useful reminder that Kelly was a man who wanted to overthrow the existing order, by force if necessary. He criticises many aspects of the colonial police force:

FAT-NECKED WOMBAT HEADED BIG BELLIED MAGPIE LEGGED NARROW HIPPED SPLAY-FOOTED SONS OF IRISH BAILIFFS OR ENGLISH LANDLORDS WHICH IS BETTER KNOWN AS ... THE VICTORIA POLICE ...

The Jerilderie letter ends with a promise not to kill those members of the Victoria Police who promise to throw down their weapons and leave the force, and insists "... my orders must be obeyed". If an ultimatum like that had been delivered by Osama Bin Laden, it would be held up as a mark of his depravity. That it was delivered by Ned Kelly, now revered as a folk hero, and remembered in the idiom "as game as Ned Kelly", must tell us something about the complexity of our national values.

Likewise the Eureka uprising, celebrated in December each year. By any standard it was a terrorist event. Its leader, Peter Lalor, later became Speaker of the Victorian Parliament. Any attempt to identify Australian Values will have to take account

IMAGE: © UK Department for International Development

IMAGE: © Rosenfeld Media-Flickr

of the puzzling fact that several fairly serious terrorist acts are bound up in our cherished history and are deeply embedded in our shared mythology. These events, as much as mateship, are part of who we are and how we see ourselves.

Building up the Bogeymen

At least since the Tampa episode, Australian politics have been marked by fear and loathing. Inducing fear in the community and hatred of boat people have been powerful, but toxic, influences in this country.

In our exaggerated response to the threat of terrorism, Australia has passed some of the most extreme anti-terror laws in the Western world. Recently, the government flagged its intention to extend the use of control orders to children as young as 14.

The effect of a control order may range from house arrest without access to electronic communications, to a restriction on the people you can associate with. The order can remain in effect for up to 12 months. It can be obtained in a secret hearing about which the subject knows nothing at all, until they are arrested and served with the order. And even then they are not to be told what the evidence was that was used against them.

So if someone made a mistake, the subject of the order won't know and they can't find out because they are not allowed to see the evidence that was used against them. Mistaken identity now assumes seriously dangerous possibilities to members of the Australian public. The idea that a 14-year-old could be subject to house arrest for 12 months, based on secret evidence in a secret hearing, is impossible to reconcile with the values and principles which, until recently, were regarded as basic to this country's character and identity. The potential for injustice is very great.

But what is most objectionable, in my view, is that control orders are just one element of a formidable array of measures that are said to protect our way of life against terrorism.

And I would say that our Society, as we know it, is less threatened by terrorism than it is by laws like these, which dramatically compromise the principles which are thought to be central to our national character.

Now, make no mistake about this: I do not approve of terrorism, but our paralysing emphasis on terrorism looks very much like a political strategy: it has been recognised for a long time that a sure path to political popularity is to make the public fearful and then offer them safety. Terrorism is the perfect device for this strategy. The attack on America on 11 September 2001 made the game easy in Western democracies. A senior politician once said this:

A seriior politician once said this.

"Why of course the people don't want war. Why should some poor slob on a farm want to risk his life in a war when the best he can get out of it is to come back to his farm in one piece? Naturally the common people don't want war...That is understood. But, after all, it is the leaders of the country who determine the policy and it is always a simple matter to drag the people along,

The idea that a 14-year-old could be subject to house arrest for 12 months, based on secret evidence in a secret hearing, **is impossible to reconcile.**





whether it is a democracy, or a fascist dictatorship, or a parliament, or a communist dictatorship. Voice or no voice, the people can always be brought to the bidding of the leaders. That is easy. All you have to do is tell them they are being attacked, and denounce the peacemakers for lack of patriotism and exposing the country to danger. It works the same in any country."

That was said by Herman Goering in 1946, during his trial at Nuremberg.¹ It would not be surprising to hear the same sentiment from a Canberra politician today in a candid moment.

IMAGE: © www.josephfeil.com

The average death toll in Australia from terrorist events is a bit less than one person per year... By contrast, two women die each week as a result of domestic violence

Overcoming Empathy

Over the past 14 years we have heard a lot of political rhetoric intended to make us fear terrorism and hate boat people. We heard a lot about the ISIS "Death Cult" from Tony Abbott, but very little about the fact that boat people were, many of them, looking to be protected against that same "Death Cult". We are constantly reminded of overseas terrorist events. We are forever being put in fear of terrorism, so that we will approve and applaud new and ever tougher laws to combat the thing we fear.

But we do need to keep a sense of proportion: our local anti-terror legislation will only have an effect on local terror attacks. Australian laws are not likely to deter terrorists in other countries. So, what is the scale of the problem which is said to provide a reason to trash our basic freedoms? On the most generous view of the figures, the average death toll in Australia from terrorist events is a bit less than one person per year. The largest ever death toll from any terrorist event on Australian soil was 26. That was at the Eureka Stockade in 1854.

By contrast, two women die each week

as a result of domestic violence. The risk of a woman dying in Australia as a result of domestic violence is at least one hundred times greater than her risk of dying in a terror attack. Deaths that result from domestic violence make the terrorist death toll pale into insignificance. A woman who has genuine reasons to fear

domestic violence is unlikely to get much help from the police, and certainly would not get a control order, since domestic violence is not a terrorist event, no matter how terrified the potential victim is; no matter how justified her fears are.

Fear triggers a response in the amygdala that is more potent than anything the cerebral cortex can manage. But the cortex

> can analyse the thing said to be fearful, and neutralise it. So let's give the cerebral cortex a chance to see what we are doing.

> Empathy is a puzzling human emotion. It needs two things: the ability to understand the feelings of another person, and the capacity to respond appropriately to that

recognition.

THE TALIBAN FOUND

HIM AND, WHEN THEY

CAUGHT HIM, THEY

THREW HIM DOWN

THE VILLAGE WELL.

THEN THEY DROPPED

A HAND GRENADE

AFTER HIM.

It is a normal human frailty to assume that others' emotional responses match our own. But as Simon Baron-Cohen has shown, the human capacity for empathy varies widely between individuals. A couple of examples will do.

In mid-2002, I received a report from a friend in Afghanistan. An Afghan Hazara boy, who had been rejected by Australia as a refugee, was sent back to Afghanistan. He returned to his village in Ghazni Province. There, the Taliban found him and, when they caught him, they threw him down the village well. Then they dropped a hand grenade after him. Most people would have trouble bringing themselves to do that - to anyone.

In China in 1937, after the Japanese had sacked Nanking, they took civilians

IMAGE: © Jon-Eric Melsæter-Flickr



AUSTRALIAN OUARTERLY JAN-MAR 2016

bound hand and foot and pushed them over a steep embankment. At the foot of the embankment, Japanese soldiers used the tumbling bodies for bayonet practice. Photographs of their activity still survive, taken by Japanese soldiers. Again, most people would have trouble bringing themselves to do that - to anyone. Or so we would like to think.

Human history is littered with examples of willful cruelty, generally willful cruelty towards a group who have been airbrushed off the map of human-kind. The 20th Century was disfigured by a number of genocides. But it showed no greater ingenuity in brutality than the torture machines of earlier centuries, or the practices of the Americans at Abu Ghraib and Guantanamo Bay in the present century.

Most of us find these things incomprehensible. We wonder how anybody could treat someone else this way. Yet what links these stories is that the victims have generally been disparaged to the point that they are no longer recognised as fellow human beings. If you are persuaded to think of them as "vermin" then they will fail to evoke an empathetic response.

The decent treatment of refugees necessarily calls on our capacity for empathy. One episode of the SBS series "Go Back to Where You Came From" included a very telling observation by a participant called Darren. After one gruelling encounter, he protested that the group was being forced to be empathetic "without our consent". It is clear that an empathetic reaction is not a matter of "consent". An empathetic *response*, on the other hand, is voluntary. A person might weep at the plight of another but choose to do nothing about it. Darren's point, I think, was that he did not welcome being placed in a position where his better nature was inclined to respond with help, but intellectually he was not willing to yield to that impulse and resented the sense of guilt which naturally followed as his amygdala wrestled with his cerebral cortex.

Indefinite Disinformation

Let me apply the empathy lens to Australia's response to boat people. In the public at large, the response is predictably variable. At one end of the spectrum are those who advocate shooting boat people out of the water, or pushing their boats back regardless of the obvious risks. Many of them email me, or troll me on social media, urging these responses. Some send me death threats.

Others express sympathy, but say that boat people should be kept away at all costs because they are "illegals" and "gueue jumpers" and a "threat to our borders". This group - who are the most numerous - present a more complex case. Their reaction shows some empathy, but their response is conditioned by a misunderstanding of the facts. That misunderstanding was created deliberately by the Howard Government, and was perpetuated and magnified by the Abbott government. And in case I sound party-political. I note that Labor has been conspicuously unwilling to denounce Coalition lies about asylum seekers. Boat people are not "illegal" or



It is clear that an empathetic reaction is not a matter of "consent". An empathetic *response*, on the other hand, is voluntary.

IMAGE: © Takver - Flickr



"queue-jumpers". On the contrary, every human being has a right to seek asylum anywhere they can find it. That is found in Article 14 of the Universal Declaration of Human Rights:

ARTICLE 14

1. EVERYONE HAS THE RIGHT TO SEEK AND TO ENJOY IN OTHER COUNTRIES ASYLUM FROM PERSECUTION. ...

Australia played a significant role in drafting the UDHR, in the aftermath of WWII.

Boat people do not commit any offence by coming here without papers, without an invitation. But our politicians call them "illegal" and persuade us that mistreating them is OK.

And in Kabul or in Tehran or in Baghdad or Damascus there is no queue to join.

Let me be plain about this: calling boat people "illegal" or "queue jumpers" is a lie.

In our ostensible concern about boat people drowning, **we punish them if they don't drown.**

Politically effective, but a lie.

And they went on about "border control". The Abbott opposition regularly taunted the Rudd-Gillard-Rudd governments about losing control of our borders. But consider this: the largest number of uninvited boat people to arrive on our shores in any year since 1788 was 25,000, in 2009. That same year, the number of people arriving on our shores with visas – most of them for tourism or business – was about 5 million. So border control worked effectively in about 99.5% of cases. Back when I was in school, I thought 99.5% was a pretty good mark. Certainly not a failure.

When Abbott won government, "border control" became "border protection". It was not easy to watch an interview with Scott Morrison, when he was Immigration Minister, without hearing him talk about "illegals" and "border protection". It is a matter of history that the Abbott government, whose leading figures were conspicuously Christian, were so dedicated to vilifying refugees, that they renamed the Department of Immigration and Citizenship: it is now the Department of Immigration and Border Protection. And Morrison, as Immigration Minister, ordered public servants to refer to boat people as "illegal".

But boat people do not break any law by coming here, they do not threaten our borders in any sense, and we do not need to be protected from them. But government propaganda has persuaded a significant percentage of the Australian public that we are being protected from dangerous criminals. Most people, even the most empathetic, would not resist the idea that criminals should be sent to jail. And if boat people are "illegal" then placing them in detention seems natural and reasonable. It does not evoke a reaction of empathy.

The matter is different once you recognise that the people held in detention centres are not guilty of any offence. It looks different when you see that boat people are held in detention for an indefinite time – for as long as it takes to resolve their claim for protection. They may be jailed for months or years or perhaps even forever. No-one can tell them in advance how long they will stay in detention. It looks different when you realise that, in our ostensible concern about boat people drowning, we punish them if they don't drown.

The Damaging Realities

As months drift into years, asylum seekers held in detention eventually break down. When they break down, they will either harm themselves or damage their surroundings. When detainees in Woomera threw themselves onto the razor-wire or sewed their lips together, Phillip Ruddock criticised them for "attention-seeking behaviour".

It was an attempt, broadly successful, to make sure that most people in the community did not react with a sense of empathy because what they saw was a group of criminals trying to manipulate the system rather than a group of men, women and children, innocent of any offence, driven IMAGE: © DIAC images - Wiki Commons

Let me be plain about this: calling boat people "illegal" or "queue jumpers" is a lie. Politically effective, but a lie.

mad by the puzzling uncertainty of indefinite detention in a hostile environment.

Let me tell you a story about the realities. A family arrived in this country from Iran in early 2001. They were members of a religious minority who have been traditionally oppressed. They are regarded as unclean by the religious majority.

The family fled after a shocking episode in which one of their daughters suffered grievously and the authorities offered no help whatever. They arrived in Australia and ended up in a desert camp. There, over the next 14 months, the condition of the family deteriorated inexorably.

Mother and father, eleven-year-old daughter, seven-year-old daughter, all gradually getting worse and worse. But especially the eleven-year old. She had completely fallen apart. A psychiatrist in Adelaide became aware of the problem and went to Woomera to speak to the family. He wrote a report in which, among other things, he said of the child:

"She refuses to engage in self-care activities such as brushing her teeth. She has problems with sleeping; tosses and turns at night; grinds her teeth; suffers from nightmares. She has been scratching herself constantly. She doesn't eat her breakfast and other meals and throws her food in the bin. She is preoccupied constantly with death, saying 'do not bury me here in the camp. Bury me back in Iran with grandmother and grandfather'.

She carried a cloth doll, the face of which she had coloured in blue pencil. When asked in the interview if she'd like to draw a picture, she drew a picture of a bird in a cage with tears falling and a padlock on the door. She said she was the bird."

After a number of pages to similar effect the psychatrist observed:

"It is my professional opinion that to delay action on this matter will only result in further harm

to this child and her family. The trauma and personal suffering already endured by them has been beyond the capacity of any human being." The report urged that the family be transferred from the desert camp to a metropolitan camp where at least they

would get proper clinical attention that the eleven-year-old desperately needed. Back then, if a detainee in Woomera was in extreme need of psychiatric help, they would be able to see the visiting psychiatrist about once every six months.

The Immigration Department moved the family to Maribyrnong Detention Centre in the western suburbs of Melbourne. Although the reason for moving them was that the 11-year-old girl needed daily psychiatric help, for the first two weeks of their stay in Maribyrnong, nobody came to see her: not a psychiatrist, or a doctor, or a social worker: nobody. Then, on a Sunday night in May 2002, while her parents and her young sister were in the mess hall having their dinner, the eleven-year-old took a bed-sheet and hanged herself. She did not know how to tie the knot properly, and she was still suffocating when the



family came back from their dinner.

She and her mother were taken to the emergency ward of the local hospital where she was put into intensive care straight away. They had two guards with them, so that, as a matter of legal analysis, they were still in Immigration

Detention. The lawyer who had been looking after their refugee application heard about this and went to the hospital at about 9.00pm. He didn't need to introduce himself because he is a regular visitor at the Detention Centre. He said he wanted to speak to the mother to see if there was anything he could do to help. He was told: 'No you can't see them, because lawyers' visiting hours in Immigration Detention are nine to five.' They sent him away. He rang me at home at 10 that night and told me what had just happened. That moment was probably the most significant turning point in my life.

Human nature broken, 8 varying, imperfect, incalculable, 52

A Study in Cruelty

Mr H had fled Saddam Hussein's regime. Within a couple of weeks of his arrival in detention in Australia, officers of the Immigration Department noted that he had suffered torture in Iraq at the notorious Abu Ghraib Prison and that the form of torture which most frightened him was being locked in a small room. In Abu Ghraib, he had regularly been held in a small cell where he was randomly electrocuted through water in the floor.

After about 15 or 18 months in detention, he fell into hopelessness and despair.

When Mr H fell into hopelessness, he started self-harming. Whenever he could find a bit of broken glass or a bit of razor wire, he would cut himself. When he cut himself, the Immigration Department did two things: they gave him Panadol (which seems to be the universal treatment in immigration detention) and they put him in solitary confinement — in a small cell. This did not help him.

After a couple of weeks in solitary confinement, he would come out even more damaged than when he went in. He would then harm himself again and the Department would give him Panadol and solitary confinement. This cycle went on for five years. Eventually, he was sent to Glenside psychiatric hospital in Adelaide for assessment and, if necessary, for treatment.

When Mr H was taken to Glenside he was assessed mentally and physically. The physical assessment showed that he had 10 metres of scarring on his body from his self-harming in Immigration Detention. This was a person who, according to Immigration Department orthodoxy, needed only Panadol and solitary confinement. He subsequently got a protection visa, but his health is ruined. Saddam Hussein tried to kill him and failed. Australia tried to incapacitate him and succeeded. That little girl was treated in the Child and Adolescent Mental Health Unit of the Austin Hospital for 12 months: until she was assessed as well enough to be sent back into detention.

Human Nature or Human Nurture?

It is disturbing how harsh we can be when we have been persuaded that the people we mistreat are a danger to us, or are unworthy of decent treatment. Between 1915 and 1923, The Ottoman government of Turkey managed to exterminate one and a half million Armenians. Between 1933 and 1945 the German people were persuaded that Jews were sub-human and 6 million were exterminated. Between 1975 and 1979, the Khmer Rouge murdered about 2 million Cambodians: nearly a guarter of the population. In Rwanda in 1994, the Hutu were persuaded that the Tutsi were vermin, and should be exterminated: in 100 days of unrestrained slaughter, about 900,000 Tutsi were killed.

When we are filled with fear and loathing, human beings are capable of doing things even wild animals would not do.

But with a clear understanding of the facts, most people will respond empathetically. Some will not, because they cannot see asylum seekers as human beings who have inner lives, hopes and fears just as rich and real as their own.

But whether an empathetic reaction is carried into an empathetic response is another matter entirely. Several things get in the way. The first, and most obvious, is that most members of the community feel that they are powerless to do anything useful to give voice to their empathetic reaction. They cannot change government policy; they cannot change the way the tabloid press stir up hatred and fear; they cannot, by their concern, conjure detainees out of detention and into a decent life. So the issue rests as just another blemish, to

be accepted or overlooked, and empathy is converted into anguish and hand-wringing.

Others whose reaction is empathetic may be less easily turned aside from action. But another fact is thrown in play by the Government: there are millions of refugees in the world – we can't

take all of them. This interesting distraction was deployed by Tony Abbott soon after he became leader of the Opposition. Asked what he would do about refugees if he were the Good Samaritan, he said in substance "we can't take all of them". It was a clever response, because it has a superficial plausibility and it eases the conscience of the empathetic by offering an excuse to Of all the asylum seekers in the world, fewer than 0.1% try to come here as boat people.

do nothing.

The problem is that it turns on an unstated premise that is false. We are not asked to take everyone. Of all the asylum seekers in the world, fewer than 0.1% try to come here as boat people. A similar percentage come here by plane with tourist or student or business visas, and they seek asylum while they are here. We don't lock up this group, because they are



not put forward as a problem. In fact, most Australians don't even think about them, much less worry about them or fear them. Tony Abbott's response was as irrelevant as asking what Christ would have the Good Samaritan do if he had encountered 10.000 beside the

road in need of help. The proportions are the same, the shift in the moral question is just as great, and the attempt to evade an empathetic response is just as clear.

This reworking of Christian teaching – ironic in a man who trained for the priesthood - was renewed when, in his Margaret Thatcher speech on 27 October 2015, Mr Abbott said: IMPLICITLY OR EXPLICITLY, THE IMPERATIVE TO 'LOVE YOUR NEIGHBOUR AS YOU LOVE YOURSELF' IS AT THE HEART OF EVERY WESTERN POLITY. IT EXPRESSES ITSELF IN LAWS PROTECTING WORKERS, IN STRONG SOCIAL SECURITY SAFETY NETS, AND IN THE READINESS TO TAKE IN REFUGEES. IT'S WHAT MAKES US DECENT AND HUMANE COUNTRIES AS WELL AS PROSPEROUS ONES, BUT – RIGHT NOW – THIS WHOLESOME INSTINCT IS LEADING MUCH OF EUROPE INTO CATASTROPHIC ERROR...

Over the past 14 years, Liberal and Labor governments alike have sought to deflect the possibility that the public will demand an empathetic response to asylum seekers. They have used various techniques. Diverting attention from the true ethical issue is one of those techniques. Howard did this by saying that boat people were "illegals", "gueue jumpers" etc. Having so grossly misrepresented asylum seekers, Howard sold a tough detention policy and the Pacific Solution by saying that it was "sending a strong message" and adding that "we will decide who comes to this country and the circumstances in which they come".

This sounded sensible even to those

IMAGE: © Tony Peyser





How many empathetic Australians would have supported Abbott's line if they saw an Afghan child caught between the **Taliban and** a people smuggler? whose initial reaction was empathetic: after all, wasn't Howard simply warning others not to break the law? Well no, actually: he was punishing innocent people to gain electoral advantage.

Abbott switched the message to one of "breaking the people smugglers' business model" and thereby side-stepped the ethical problem of attacking boat people. But it had two other problems. First, it overlooked the fact that not all people smugglers are equally bad: they cannot be lumped together in one moral basket. To do that would be to equate the worst, most callous people smuggler with Oskar Schindler and Dietch Bonhoeffer and Captain Gustav Schroeder of the MS St Louis.

This approach feigns concern about asylum seekers by suggesting that we do not want their lives put at risk by unscrupulous people smugglers. But it leaves aside altogether the reality that, without people smugglers, the asylum seekers are left to face ethnic cleansing at the hands of the Taliban or genocide at the hands of the Sri Lankan Government.

Gillard did something similar.

Apart from its inaccuracies, this line overlooked the fact that refugees need people smugglers. It's a demand-driven business. Without people smugglers, refugees have no means of escaping persecution. When Abbott "broke the

people smugglers' business model", he "stopped the boats", in the sense that he prevented boat people from arriving in Australia. He sold this to us as a good thing

because it would "Stop the Drownings". A person who responds with empathy to the plight of asylum seekers may think it good to protect them from the evils of people smugglers and the perils of the sea, but may not recognise that it simultaneously ignores the risk that the refugee may perish in a different attempt to find safety, or be killed by their persecutors. They are still dead, just as if they had drowned.

My great objection to the "Stop the Boats" mantra, is not just that it was not heard when the SIEV-X sank, with the loss of 353 lives, on 19 October 2001. In truth it was directed to sparing us the pain of seeing people die on the shores of Christmas Island. The government knows that if refugees cannot get to safety here, they will look for safety somewhere else, and risk dying somewhere else. But we will not know about it, so our conscience remains untroubled.

I wonder how many empathetic Australians would have supported Abbott's line if they saw an Afghan child caught between the Taliban and a people smuggler. Most people recognise that, in the same circumstances, they would chance their arm with a people smuggler.

One of the worst legacies of the cruelty of Howard and Abbott, and the duplicity of Gillard and Rudd, is that Australia has responded to innocent people with increasing cruelty and fear. It is not a reflection of our true character. It misrepresents us and it shames us. We deserve better politicians than these. It remains to be

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> seen whether Malcolm Turnbull can show genuine leadership and help Australia realise how seriously we have betrayed our true nature.

April 2016

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Discordant Voices

How Choir Music Helped to Shape our Parliaments

In 1632 the Scots began work on the construction of their first formal parliamentary building. The decision to construct a purpose built parliament, replacing meetings in different towns and buildings, was partly driven by the changing nature of the relationship between the parliament and the monarch, and partly to reinforce Edinburgh's position as the principal Scottish city. Built in the classical style, the building was to be "an architectural expression of (Stuart) royal, state and civic power and justice".¹ When the new parliament was first used in 1639, it is thought that the members sat on redecorated pews taken from (and later returned to) the nearby St Giles Cathedral.²

he deliberate construction of an imposing parliament as a 'theatre of state affairs' reflected patterns that have since become dominant in parliamentary buildings around the world. But, in the apparently accidental use of ecclesiastic furniture – pews taken from the Cathedral choir set facing each other – the Scottish Parliament mirrored the English parliament at Westminster, and anticipated a pattern that has since been replicated in many Westminster-style parliaments, including all those built in Australia.

Different parliaments have different structural arrangements and each has been

ARTICLE BY: PROF CLEMENT MACINTYRE

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IMAGE: European Parliament 2006



The shape, design and internal layout of legislative chambers forms a key part of the way that each of them work, and also influences the behaviour of the members that sit in them.

influenced by their own distinct circumstances. Inevitably, however, the shape, design and internal layout of legislative chambers forms a key part of the way that each of them work, and also influences the behaviour of the members that sit in them.

The fact that the rectangular chamber of the current British House of Commons – including the organisation of the benches facing in direct opposition to each other – was derived from the structures and the arrangements of the choir stalls in St Stephen's Chapel is widely accepted.³ After adapting and using a range of other buildings at Westminster in earlier years, the English Parliament met in St Stephen's Chapel from about 1548 until it, and much of the old Palace of Westminster, was destroyed by fire in 1834.

When the Chapel was first used as a legislative chamber it underwent only minor changes to accommodate the parliament. The most significant was a wall placed across the Chapel to reduce the length of the chamber and create an entrance lobby. Other modifications came later, but the essential shape and use of the internal space remained largely unchanged.⁴ Importantly, the choir stalls "became the benches on which the members sat".⁵ In other words, the benches used by the members replicated the alignment of the Chapel's choir and faced each other across the nave of the chapel.

This was not a new arrangement for legislative meetings. Most English halls in the medieval period were arranged in a similar way: a rectangular space with a high table, often on a dais, at the end of the chamber with seating running in straight lines parallel to the side walls. Similarly, the meetings of the European Estates (clergy, nobility

IMAGE: Whitlam in the House of Representatives 1964 © National Archives of Australia

and commoners) in the middle ages often took place in a rectangular room, with the first and second estates sitting either side and in front of the king, and the third estate sitting behind.⁶

Looking further back, it is possible to

see close parallels between the Commons and the seating arrangements used in the Roman Senate.7 So clearly the use of a chapel to house the parliament would not have upset many of the existing conventions.8 Nevertheless, there can be no doubt that the specific setting and the structures found

in St Stephen's played a significant role in shaping the ways that parliaments—includ-ing the Australian ones—operate today.

The Shape of Debate

As well as influencing the arrangement of the benches, the Chapel's earlier use as a place of worship possibly also helped influence other aspects of our current parliamentary arrangements. It has also been argued that members' acknowledgement of the Speaker on entering and leaving the chamber is an echo of the respect shown previously to the altar, and that the Treasury benches being on the right of the Speaker's chair reflects the location of the pew used by the monarch when attending religious services in St Stephen's Chapel.⁹

But it is the seating arrangements, with members looking directly at each other across the floor, that is one of the defining

THE SPECIFIC SETTING AND THE STRUCTURES FOUND IN ST STEPHEN'S PLAYED A SIGNIFICANT ROLE IN SHAPING THE WAYS THAT PARLIAMENTS – INCLUDING THE AUSTRALIAN ONES – OPERATE TODAY. characteristics of Westminster-style parliaments. In Australia we take it largely for granted that an oppositional parliament provides the best way of testing government policy through debates in the parliamentary chambers. The role of the opposition is to hold the aovernment to account in the

parliament, to challenge policy and to offer voters an alternative administration. We are used to seeing political battles in the parliaments played out as tribal confrontations. Members are cheered on by those sitting around them and are heckled by those across the floor. This is part of our We are used to seeing political battles in the parliaments played out as tribal confrontations. Members are cheered on by those sitting around them and are heckled by those across the floor. This is part of our political culture and is seen as the norm in a chamber designed to encourage and foster adversarial debates.



IMAGE: Roman Senate © Cesare Maccari



Across most of Europe and in the United States, legislatures follow the model that was developed in France at the time of the revolution.

political culture and is seen as the norm in a chamber designed to encourage and foster adversarial debates.

This should not be a surprise. It is no accident that the opposed choir stalls that define Westminster systems were arranged as they were. The origins of different parts of the choir facing each other across the nave or the apse of a church lie in the traditional antiphonal singing that characterised much early religious music:

"Antiphonal singing" means dividing a group of singers into two groups in such a way that they are (usually) separated spacially from each other, for example: the right and left sides of a church The singings usually alternate (one group sings and the other group responds).¹⁰

In other words, our parliamentary benches have their origins in choir music that depends upon responsive and oppositional singing. Antiphonal singing, with the notion of harmonic progression, might be seen as a form of

be seen as a form of musical concordia discours, where it is the conflicting voices that create an overall harmony: dissonance that generates accord.¹¹ The theory underpinning Westminster oppositional parliaments is that it is in the dissonance, or contested debates, that policy is tested, refined and proved.

But this oppositional model is far from standard in many parliamentary democracies. Across most of Europe and in the United States, legislatures follow the model that was developed in France at the time of the revolution. Adapting and challenging the configuration of the Estates' meetings, those sympathetic to the king sat on the right side and those opposed sat on the left. When the French National Convention found a permanent home in a converted theatre shortly after the revolution, the members were arranged across the fanshaped amphitheatre that once held the audience. It is from the positions that they took that we get our notion of 'left' and 'right' in politics.12

Many of today's European debating chambers are circular, semi-circular or take the shape of a fan or crescent. In the United States, the chamber of the House of Representatives is rectangular, but the seats are arranged in a semi-circle with the Speaker located against the middle of the longer wall. These chambers are characterised by members facing towards a central



IMAGE: Norwegian Parliament

point where a presiding officer sits.

A few parliaments arrange the seating in a series of straight rows rather like an old-fashioned classroom, with benches parallel to each other across the room and facing the front of the chamber. This form is often used in undemocratic assemblies (for example China and North Korea), but some recently restored democracies have also adopted this form (for example Estonia and Macedonia). Only a relatively small number of legislative chambers echo the British oppositional model with straight benches facing each other across the room (with a small number of cross benches facing the Speaker), or as is the case in Australian parliaments, oppositional but with a horseshoe shaped curve at the far end of the benches.13 It does not take much imagination to see how these diverse models suggest very different relationships within different chambers.

Keep your friends close...

Regardless of the shape of the chamber and the arrangement of the seats, most parliaments see members of the same parties sitting together. Often, as in Australia, the largest party or coalition will take the seats to the right of the Speaker, though in Ireland the government sits on the left. In the United States, seats in the House of Representatives were allocated by lot for much of the nineteenth century. Since 1913 the Democrats have sat to the right of the Speaker and the Republicans to the left and in several other national legislatures, party blocks will stay on the



In some chambers (for example Sweden and Norway) the members are not arranged by party, but by geography: MPs from the same region will sit together regardless of the party that they represent.

same seats despite changes in the relative number of members. $^{\rm 14}\,$

In some chambers (for example Sweden and Norway) the members are not arranged by party, but by geography: MPs from the same region will sit together regardless of the party that they represent. One or two parliaments sit their members in alphabetical order and in Iceland the seats are distributed randomly as members draw lots.¹⁵

Just as there is no common practice over the arrangements of the seats, there are mixed arrangements about the 'ownership' of individual seats. In the Australian parliaments, members are allocated a specific seat. In many other parliaments (including the UK), other than a few designated seats for cabinet members, there are no individual reserved seats. Indeed in the British House of Commons, the number of seats available is well below the total number of MPs. If all attend a debate, some will find seats in the gallery and others will be forced to stand.

Another variation is the location and parliamentary role of the political executive.

In presidential systems, with more formal separation of powers, it is generally the case that members of parliament cannot hold ministerial appointment. Westminsterstyle parliaments require ministers to be members of the parliament, either by election or appointment. In some parliaments MPs who are members of the cabinet leave the main body of members and sit facing the rest of the members. In others, ministers occupy designated seats: in the Westminster system, on the front bench on the right of the Speaker, in some others in the front row of the semi-circle.¹⁶

But is any of this of interest to anyone other than students of obscure parliamentary practices? I think that it should be. We all know that the shape and arrangements of a space have a tendency to influence the occupants of that space. People behave differently when they walk into a large cathedral than when they enter a small and intimate public space. Urban designers know that the form and arrangement of buildings in an environment is likely to shape behaviour. Engagement in meetings is different if held 'in the round'

Only a relatively small number of legislative chambers echo the British oppositional model with straight benches facing each other across the room.



IMAGE: French Assembly 1877 © Jules-Arsène Garnier

rather than in a lecture format. So it is true that the arrangements inside legislatures affect the way that occupants respond.¹⁷

When the rebuilding of the House of Commons in Westminster was being debated in the aftermath of it being bombed in 1941, Nancy Astor, the first woman to take up a seat in the Commons, argued against Churchill's plan to rebuild along the lines of the old oppositional chamber. She contended that a different arrangement of the benches would lead to less conflict and argued that the conflict heard in the parliamentary debates did not "help democracy".¹⁸ More recently some Australian commentators have been critical of Australia's "masculine styles of politics" and have suggested that "women perceive themselves as doing less well in the adversarial chamber politics characteristic of majoritarian Westminster systems".19

Astor wanted a change to the shape of the chamber and the way that the benches were arranged. In parliaments based on a circular or fan shape members often do not speak from their seats but come to a central rostrum or a lectern at some point on the aisles. It is reasonable to assume that when speaking from their benches and facing each other directly across the chamber, members are more likely to engage in confrontational rhetoric. When away from the supportive environment of a block of fellow party members and facing either the presiding officer from a lectern in the aisles or the whole of the chamber from a central point, members will be more isolated when speaking. Even when members in fan shaped chambers do speak from their own seat, they are facing the presiding officer and not their political opponents. The body language of the member addressing the house and of the other members is likely to be more muted than in a directly confrontational layout.

An Entrenched Legacy

The Westminster seating pattern of course pre-dates formal political parties as we know them today. It was this oppositional arrangement that may have helped establish and settle the two-party culture that today typifies many Westminster-style parliaments.²⁰ Facing each other across the chamber facilitates a system with two dominant parties: it encourages an "atmosphere of confrontation between Government and Opposition".²¹ On the other hand, where electoral systems generate multi-party systems, often with "deep socioeconomic cleavages" it has been argued that "a spirit of cooperation" is required and that "the circle type is the best choice".²² Obviously, there is much more to a political culture than the simple design of the chamber.23

Nevertheless, studies of parliamentary systems characterised by semicircle seating and where members address the chamber from a central rostrum (and where proportional electoral systems are more common), have claimed that there are different levels of voter satisfaction when compared to Westminster-style majoritarian systems.²⁴

More recently, generalisations over the notion of majoritarian and consensus systems have been challenged.²⁵ Nevertheless, there is evidence that while the policy outcomes might not be that different, the nature of the debates can be. In a study of the relative power of the centre and the periphery in Norwegian politics, Hilmar Rommetvedt has argued that it is the way that the members of the Norwegian parliament are arranged that may well influence the engagement that takes place between members. As he argues, being seated on the basis of the geography of the constituency, rather than in a party block, can generate cross-party understanding. There is "considerable time for informal communication" that acts to lower political tension and this "communication may reduce the conflicts between the parties, and strengthen the cooperation between county representatives across party cleavages".26

One of the points of difference that a less confrontational institutional setting should generate is less overt violence on the floor of the parliament. There have of course been many examples of altercations that fell not far short of brawls in oppositional parliaments. In the House of Commons, tempers have been raised to the point where scuffles have broken out and members have been assaulted. At other times, books have been thrown across the chamber, and the mace has been seized and waved before members.²⁷

Despite this, most Westminster-style parliaments are fairly free of violence and there are very few examples of direct physical confrontations between members in Australia. Indeed, we are more used to reading of aggressive behaviour between members in those parliaments

Some Australian commentators have been critical of Australia's "masculine styles of politics" and have suggested that "women perceive themselves as doing less well in the adversarial chamber politics characteristic of majoritarian Westminster systems".

where members sit in a semi-circle with less obvious party divisions than in the oppositional ones. It may well be that frustrations between different members are greater where there are less formal levels of party discipline than in those parliaments where there is a level of formal conflict between parties that is stark, but is managed, legitimated and accommodated within the system.

We started by seeing that the original seventeenth-century Scottish parliament followed similar design principles and

patterns as the House of Commons. More than 350 years later a new contemporary parliament was built at the other end of the Royal Mile in Edinburgh to house the newly devolved Scottish parliament. This time, rather than follow Westminster, the chamber was designed in a shallow fan or crescent shape.

In another break from Westminster (and in contrast to other assemblies) the

governing party sits in the middle of the chamber, directly in front of the Presiding Officer with opposition and other parties on both its left and right hand sides. This was a deliberate attempt to foster a new political culture, in a new physical environment with a conscious rejection of the orthodoxies of Westminster. Reflecting upon the new Scottish Parliament, Rosa Malley argued that despite "Adversarial exchange and partisan



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posturing" being common,

debate in the Scottish Parliament is not experienced as exclusionary to nearly the same extent as Westminster. [Scotland's] ... parliamentary culture looks to be more inclusive of women and other historically under- represented groups. This is a substantial difference between these two institutions that has been underestimated in mainstream studies of these parliaments.²⁸



Yet Paul Cairney and Anders Widfeldt reach different conclusions in their study of the Scottish and Swedish parliaments:

Devolution was sold by many groups as an opportunity to reject 'old Westminster', broadly in favour of the consensual practices of the Scandinavian democracies.... To date, the Scottish experience suggests that these aspirations were not reinforced by reality.²⁹

If all Senators for a particular State sat together, would this help the Senate to become more of the States' house as envisaged in the Constitution? They point to a deeper frame of policy making—one located in the structures of government and the bureaucracy—that is every bit as powerful in the shaping of political outcomes as the parliamentary arrangements.

There can be no doubt that behaviour in parliaments and engagement with parliamentary processes matters. If structural changes can make a difference and lead to better outcomes they should be supported. What passes for question time in most Australian parliaments at the moment is not the valuable and constructive part of parliamentary business it should be. Some reform is clearly needed. Yet, at the same time the oppositional model that we are used to in Australia is deeply entrenched.

We can speculate as to what changes in behaviour and to the quality of debates might come from sitting all Members of the House of Representatives, or Senators in a random order or sitting them according to their States of origin. For example, if all Senators for a particular State sat together, would this help the Senate to become more of the States' house as envisaged in the Constitution?

But this will remain no more than speculation. There is no evidence of an appetite for reform (other than perhaps changes to the electoral rules used for the Senate). Australian parliaments will stay as oppositional chambers. All we can hope is that from the competing and discordant voices they can produce strong policy outcomes.

Smart Cities:

JULY 2016

Socio-Technical Innovation for Empowering Citizens

By 2020, 80% of the world's population is expected to be living in cities. Some estimates are predicting that the cost of urban congestion will reach \$37.7 billion by 2030. Under the pressure of such drivers governments, councils and leaders in all spheres of life are rethinking urbanisation and are conceptualising futuristic solutions to improve the liveability, sustainability and economy of our urban spaces.

ARTICLE BY: PROFESSOR ALI BABAR

ike everywhere else, Australian governments, councils, and private sectors are realising that it is becoming imperative to find solutions to effectively and efficiently manage city resources while providing social and environmental standards relevant to the norms and values of their citizens.

Recently, the Turnbull government released their 'Smart Cities Plan'¹ – a document that advocates the concept of '30 minutes cities' – to guide urban planning

IMAGE: © Dept of the Prime Minister and Cabinet

A 'Smart City' helps capitalise on opportunities while easing the challenges of urbanisation.

so that a city's residents can have access to employment, shopping, services, recreational facilities and schools all within 30 minutes of their homes.

Its aim is to act as a framework for policy and decision making, at the city and federal levels, to improve Australian cities and regions, along with the expectation that appropriate infrastructure planning and investment will support the plan.

The federal government's 'Smart Cities'related initiatives are coincident with many debates and initiatives supporting sociotechnical innovation and entrepreneurship, which have the potential of delivering benefits to all Australians.

Advances in Information and Communication Technology (ICT) are at the centre of the socio-technical innovation that underpins '*Smart City*' programs all around the world. And at the very core of the innovation driving the 'Smart Cities' agenda, needs to be extensive and robust engagements and collaborations between different stakeholders, including governments, councils, citizens, industry, and universities. Any discussion about 'Smart Cities' needs to look into the needs, different forms, and mechanisms for conceiving and materialising 'Smart Cities' initiatives in their respective contexts.

With 'Smart City' becoming a catchphrase, initiatives and platforms are mushrooming. Whilst rapid urbanisation introduces challenges to city services and infrastructure, an increased population also creates economic opportunities and social advantages for citizens. A 'Smart City' helps capitalise on opportunities while easing the challenges of urbanisation.² This means that improving



cities' infrastructures towards 'smartness', as well as educating the next generation with IT skills, is crucial for future economic growth and competitiveness.

So what is a 'Smart City' and what types of challenges can be involved in conceiving, creating, and evolving a 'Smart City'?

Human Before Machine

There exists a large variety of definitions to describe a 'Smart City', which has also been referred as: digital cities, intelligent cities, ubiquitous cities, information cities and also creative cities, knowledge cities, learning cities, and smart communities. Based on our own perspective and work, we define a 'Smart City' in this way:

A Smart City embodies innovative solutions enabled by digital technologies for effectively and efficiently creating and sustaining liveable and vibrant infrastructures and ecosystems for socioeconomic benefits of involved stakeholders including communities, enterprises, and governments in the 21st century.

IMAGE: © mini malist - Flick

SMART CITIES: SOCIO-TECHNICAL INNOVATION FOR EMPOWERING CITIZENS

Internet of Things:

Everyday items that have network connectivity, allowing them to send and receive data without a human interaction – your fridge automatically reordering chocolate after you polish of that entire block that you were meant to share.

Internet of Everything:

The IoE brings together people, process, data and things to add greater depth and relevance to network interactions, using that information to drive new opportunities and efficiencies — an ecology of smart devices, working together. From a technological perspective, emerging technologies such as Big and Open Data analysis, Cloud Computing, Fog Computing, the Internet of Things (IoT) or the Internet of Everything (IoE), and their innovative applications, are paving the way for conceiving, designing, and deploying smart applications.

Yet one important point to be understood is that 'Smart City' solutions should neither be one size fits all, nor should they be technology driven.



FIGURE 1: Dimensions of Smart Cities

The 'Smart City' paradigm is being incorporated into the envisioning and developing of new urban areas and/ or renewal of existing infrastructure and dwellings by employing ICT based solutions. However, this approach misses the key point – a real 'Smart City' should be focused on socio-technical innovation for empowering citizens to improve liveability, renew economic wellbeing, and increasing sustainability. It should be human-needs driven.

Before going into the details of how a 'Smart City' can serve the needs and desires of Australian citizens, let's touch upon some fundamentals.

As shown in Figure 1, it is widely understood that a 'Smart City' initiative can have three main dimensions: a) urbanisation challenges, b) role of stakeholders, and c) potential of technologies.

The urbanisation challenges are characterised by the socio-economic problems that a 'Smart City' initiative can aim to address. These challenges can be found and transformed in opportunities across a large spectrum of disciplines and domains, such as energy, natural resource management, sustainability, healthcare support, intelligent transportation systems, A real '*Smart City*' should be focused on socio-technical innovation for empowering citizens to improve liveability, renew economic wellbeing, and increasing sustainability. **It should be human-needs driven.**

economic development, and urban infrastructure design.

Most of the time, the devised solutions have ICT-based innovation underpinning them as the 'smartness' of a city is usually enabled by continuously evolving technological trends (also called disruptive technologies).

A 'Smart City' could be built on physical and human sensors that generate real-time information by sensing their surroundings. The produced city-related big data, is intelligently stored, integrated, analysed and utilised by software applications to enable the city to achieve smarter outcomes in resource management and decisionmaking in regards to its socio-economic challenges.

Stakeholders are important components of a 'Smart City' initiative, which usually has several types of stakeholders such as citizens, governments, councils, and industry. Some approaches place significant emphasis on involving stakeholders in the conceptualisation and materialisation of a 'Smart City'.

It is imperative to systematically understanding stakeholders' viewpoints, concerns and demands. A stakeholder-centric approach towards '*Smart Cities*' enables realistic understanding of problems to provide practical solutions that are aligned with a city's characteristics. This way there can be a desirable alignment between municipalities' policies, business models, citizens' needs and behaviour and technological solutions.

The above-described high-level dimensions of a '*Smart City*' are usually broken



down into six characteristics that define the 'smartness' of a city³ – often used for describing projects for European 'Smart *Cities*¹⁴:

- Smart Economy is concerned about competitiveness and economic growth resulting from innovation, productivity, entrepreneurship and a flexible labour market. It can incorporate the evolving collaboration models and new sources of income.
- Smart Mobility is concerned about utilising ICT solutions to facilitate transportation systems. Smart mobility targets safety, efficiency and comfort of transportation system while highlighting sustainable and green solutions to reduce carbon footprints.
- Smart Environment deals with the smart utilisation of energy and natural resources to preserve nature. A variety of research topics and ICT solutions could be in this category such as utilising

A stakeholder-centric approach towards 'Smart Cities' enables realistic understanding of problems to provide **practical solutions that are aligned** with a city's characteristics. renewable energy, employing energy grids, smart metering, smart lighting, waste and water management.

- Smart People is a dimension that emphasises the role of social and human capital to support smartness in a city. It highlights that smart people and their relationships can drive innovation and creativity. This category can incorporate factors such as education level, familiarity with ICT skills, open-mindedness, collaboration and participation in a city's smart solution.
- Smart Living focuses on employing ICT to support quality of life. It can incorporate a variety of areas such as healthcare, safety, culture, quality of buildings, and city infrastructure, and tourist attractions.
- Smart Governance aims at utilising ICT-based solutions to facilitate political participation of citizens in decision-making, raising transparency and improving efficiency and quality of social services.

IMAGE: © Dept of the Prime Minister and Cabinet

SMART CITIES: SOCIO-TECHNICAL INNOVATION FOR EMPOWERING CITIZENS



CITIES ARE USUALLY HUGE AND COMPLEX ENTITIES; SO ARE THEIR CHALLENGES. IMAGE: © Dept of the Prime Minister and Cabinet

This category can incorporate factors such as e-government, e-democracy, transparency and provision of open data. Having detailed the key motivators and dimensions of a 'Smart City', it is relevant to talk about how cities can go about conceiving and building 'Smart Cities'. There are a variety of ways of going about 'Smart Cities' projects. Cities are usually huge and complex entities; so are their challenges. Hence, developing and deploying 'Smart City' solutions can involve significant risks that need to be carefully considered and appropriately mitigated and managed.

The Role of Smart Campuses

Given the challenges and complexities of designing and implementing '*Smart City*' initiatives, it is considered prudent to design and implement solutions on a smaller but realistic scale. For example, by developing, deploying and evaluating smart solutions using existing, albeit micro, infrastructure test-beds – such as a university campus – these can be transformed into a '*Smart Campus*'.

Deploying 'smart' capabilities and services on a university campus provides a suitable '*Living Lab*'⁵ for trialling solutions in a real environment with real users before the solutions can be considered viable and scalable for the large initiatives required to build 'Smart Cities'.

A university campus-based 'Living Lab' can provide a great opportunity for not only improving the liveability for students and staff members, but can also be leveraged as Test and Experimentation Platforms (TEPs) for devising, deploying, and evaluating theories and applications that may find their ways into '*Smart City*' initiatives after appropriate evaluation.

Most of the universities in the developed world are expected to have some of the elements required to start building a mini 'Smart City'. They usually have the infrastructure, knowledge, and expertise in various disciplines to contribute to the design and implementation of intelligent socio-technological solutions for a 'Smart Campus'; and they contain readily available end users, i.e. students, staff members, and visitors, using the deployed smart services.

Nowadays, all the universities would have on-campus Wi-Fi that is frequently used by students for connecting to the Internet for educational and recreational purposes. These Wi-Fi infrastructures collect and aggregate data using different sensing devices installed at various places in a university, as well as the end users' devices such as smart phones, smart watches, laptops and smart bags.

The collected data can be exploited (after appropriate privacy protection measures) for developing and providing smart services to people on a campus. The university wide Wi-Fi network, sensors, and actuators can make up an IoT infrastructure for enhancing existing or building new cyber physical systems to provide a diverse set of smart services.

A 'Smart Campus' can provide enhanced security and safety (i.e. physical and digital) to everyone on campus. Smart applications for asset tracking and management can be good mechanisms against the potential risk of theft or vandalism of private or university property.

A 'Smart Campus' is expected to help monitor and optimise the utilisation of on-campus resources, for example, energy monitoring and management, smart waste management, smart management of lecture theatres and study facilities. A 'Smart Campus' can enhance students' learning experiences by enabling staff to analyse the potential of learning materials in preparing students for

a smart city. A'Smart Campus' can empower students and staff to be highly involved in analysing the challenging areas and devising innovative solutions for building and evolving a smart campus.

Whilst 'Smart Campus' projects can fall under any of the six well-known themes of a 'Smart City', this article focuses on three themes that can characterise most of the solutions of a 'Smart Campus': Smart Environment, Smart Living, and Smart People.

Smart Environment on a Campus

Sustainability has become one of the key strategic areas for governments, councils, public, and private sectors. It is expected that existing operational and logistical infrastructures and future initiatives will pay significant attention to the potential environmental impact to enhance the



sustainability of resources and the planet.

Hence, a 'Smart Campus' initiative is expected to pay significant attention to the sustainability aspects of its operations and logistics. A 'Smart Campus' also provides appropriate knowledge and systems to its inhabitants so they can contribute to sustainability initiatives on and off campus.

Figure 2 shows some of the main areas where highly visible and valuable projects can be developed in many Australian universities. We believe that an initial set of research and development projects of a *'Smart Campus'* program should align with existing university wide initiatives, such as Ecoversity⁶ at the University of Adelaide. These types of initiatives not only serve a university's sustainability goal but can also contribute to a city's or a state's carbon neutrality goals.⁷

Australian universities can also benchmark their 'Smart Campus' sustainability initiatives against other similar initiatives within Australia

FIGURE 3: Smart Living: Some Areas for Research and Development Projects.

FIGURE 2: Smart Environment: Some Areas for Research and Development Projects.

or any other place in the world, e.g. the European Union has funded 'Smart Campus' projects involving several universities across Europe.⁸

Smart Living on a Campus

People study, work, or visit a university's campus for a variety of durations during which they can be considered the residents of that university's campus. These residents expect different facilities and services made available to them for performing their work, educational, social, or recreational activities. There can be a large variety of smart services that can be provided to enhance the quality of the campus experiences for its residents.

Figure 3 presents some categories of the areas where different research and development projects, both small and large, could be conceived and implemented for contributing to a 'Smart Campus'.

For the smart living theme, we can envision several creative and smart solutions



Solutions would aim to build reliable communication channels within and between groups of students and staff members for serendipitous interactions and collaborations.

for enhancing the living experiences of a campus' residents, as well as supporting research and development for socio-technical solutions. For instance, with regard to security and safety of a campus' resident, a smart service can be deployed for provisioning an asset-tracking system aiming at theft protection. Such a system can be implemented by leveraging some of the key technologies underpinning any 'Smart City' initiative such as IoT, big data analytics, and cloud computing.

Another smart service can enable 'Smart Campus' residents to select and place their lunch orders based on their dietary needs and locations of their whereabouts: and then the users are informed about the ingredients and calories in the ordered food and how to sustainably dispose of the food container and leftovers after finishing the lunch.

In the category of social cohesiveness, we envision innovative socio-technical solutions leveraging social interactions across a 'Smart Campus'. The envisioned solutions would aim to build reliable communication channels within and between groups of students and staff members for serendipitous interactions and collaborations.

A socio-technical platform in this regard can effectively utilise social network technologies for sharing related information with interested parties. For instance, a reliable platform for advertising accommodation, second-hand books and furniture, and social gatherings can be provided that intelligently recommends available offers to individuals.

Smart People on a Campus

The Smart People theme, in the context of a 'Smart Campus', mainly covers the areas of introducing and leveraging innovative and unique ways of supporting learning and teaching. Such initiatives encourage and inspire students to gain relevant knowledge and skills in a diverse set of disciplines that can be brought together to spark innovative solutions for improving the liveability and sustainability of cities and communities. Such knowledge and skills can be imparted as part of formal education as well as informal and social interactions.

Data analytics technologies can help to improve students' learning experiences and retention rate. Right now learning analytics are mainly focused on providing academics with the required information; students can be empowered to take a more active role in monitoring and managing their academic performances and careers on a daily basis.

They can access their performance



against different metrics and should be able to benchmark themselves against other students (anonymously) who match certain characteristics criteria.

Knowledge and experience possessed by the on-campus 'smart' people (i.e. academics and researchers) can provide fruitful grounds for forging collaborative ties with industry, governments, and councils, for analysing a city's requirements for a 'Smart City' and help in devising and evaluating appropriate solutions for fulfilling the requirements of a 'Smart City'.

Students can be extensively involved in analysing problem areas and contribe to conceiving and materialising innovative solutions for building a 'Smart Campus'. A 'Smart Campus' can help a university to differentiate itself from its competitors and can enable students to learn valuable skills and experiences that can help make them readily employable within burgeoning 'Smart Cities'-related industries forecast to be worth around of US\$408 billion 9



IMAGE: © Dept of the Prime Minister and Cabinet

The Race is On

By having smart campuses, universities stand not only to achieve economic benefits but also increase their reputation and attraction amongst current and future students and staff.

Rapid and persistent advances in ICT and increasing urbanisation challenges are convincing policy and decision makers to rethink urban planning and implementa-

tion in the context of the 'Smart Cities' paradigm. An increasing number of cities are working (or are at least aspire) towards becoming 'smart' – India alone has an aspiration of having 100 'Smart Cities'.¹⁰

A large number of these initiatives are being driven via a 'technology

push' that may not deliver the desired results. Digital technologies are enabling mechanisms for building futuristic 'Smart Cities'; however, these initiatives should be citizen-centric for driving socio-technical innovation for empowering citizens.

Any 'Smart Cities' initiative is expected to face a myriad of challenges (e.g. social, economic, political or technological) that need to be understood and addressed before launching large-scale projects.

Our universities have huge potential for making significant contributions to

effectively and efficiently conceiving and materialising '*Smart City*' initiatives. They are immense sources of knowledge and expertise for understanding and addressing the hard problems that characterise such projects.

Local councils, governments and industry can greatly benefit in their respective 'Smart Cities' projects by setting up new – or strengthening existing – links with universi-

Digital technologies are enabling mechanisms for building futuristic 'Smart Cities'; however, these initiatives should be citizen-centric. ties in order to tap into the invaluable sources of knowledge, expertise, and skills developed through decades of fundamental and applied research with hundreds of millions of dollars of investment. These innovative

and unique solutions can be deployed and evaluated in 'Smart Campus Living

Labs' before making their way to 'Smart City' projects that are usually characterised by high visibility and risk. Close collaborations among the key stakeholders (i.e. councils, governments, industry, universities, and citizens) of 'Smart City' initiatives are expected to be catalysts for innovations and entrepreneurships leading to increased productivity and economic activities.



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A Brave New World:

Understanding the Ethics of Human Enhancement

For the past two decades a debate has raged in academic philosophy and bioethics about the rights and wrongs of using drug therapies, genetic interventions, mechanical augmentation and other medical procedures to enhance human physical and mental capacities above the normal upper limits for our species. Many 'bio-conservative' opponents of human enhancement argue that it is morally wrong to alter human nature, to 'Play God', or to 'seek mastery of ourselves', even if attempts to do so are likely to benefit humanity as a whole. ne problem with these sorts of criticisms is that it is often hard to pin down exactly what their scope is. Take the charge of 'playing God'. It

sounds like a very bad idea for humans to 'play God', but the charge is often thrown around carelessly, and is particularly likely to be heard when new technologies are introduced.

When In Vitro Fertilisation (IVF) techniques were first pioneered in the 1970s many conservatives, especially religious conservatives, criticised its use on the grounds that this amounted to playing God. There have been over five million IVF

ARTICLE BY: ASSOC PROF STEVE CLARKE

If a human enhancement can occur naturally, as a result of evolution, then it is not easy to see why it would be morally problematic to introduce the same enhancement deliberately.



births since then and the charge of playing God is rarely, if ever, heard in association with IVF these days. But if the use of IVF is no longer to be considered to be a form of playing God, then perhaps some forms of human enhancement shouldn't count as instances of paying God either.

In order to be able to know how and when to apply the charge of playing God we need a theory that explains why some activities, which we generally deem as

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acceptable, such as employing IVF, are not instances of playing God, whereas others are. But a general theory of what does and does not count as playing God has yet to be provided.¹

The charge of altering human nature faces a different problem. We now have very accurate information about what it is to be human, courtesy of the Human Genome Project. But genetic information about what it is to be human doesn't seem to have any moral importance. We know that human genes, like other genes, can mutate, but we would not consider a person who happened to possess a genetic mutation to be somehow immoral. A beneficial form of human enhancement might naturally occur as a result of mutation and then natural selection over many generations. But if a human enhancement can occur naturally, as a result of evolution, then it is not easy to see why it would be morally problematic to introduce the same enhancement deliberately.

When people talk about behaviour that goes against human nature, often what they have in mind is not behaviour that is somehow inconsonant with the theory of evolution, but behaviour that fails to conforms to the dictates of 'natural law theory'. According to Aquinas all of us possess knowledge of the 'natural law', which is aligned with God's eternal plan. We can naturally discover that it is morally wrong to commit murder, for example, just by introspecting, and we do not need to be told this by any external authority.

In the same way, it might be said that we just naturally know that it is wrong to enhance ourselves. Unfortunately, natural law theorists have a long and sorry history of declaring practices which they don't happen to approve of to be against natural

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law, on dubious grounds. Homosexuality, masturbation, the use of birth control, and interracial marriage, have all been declared to be against 'natural law', at one time or other. But one can also find contemporary natural law theorists who declare some or all of these practices to be consistent with natural law. Natural law theory seems to be highly elastic; so much so, that it is hard to see why it could not be reconciled with the use of human enhancement technologies.

In addition to raising objections to bio-conservative charges of playing God, interfering with human nature, and the alleged sin of seeking mastery of ourselves (which is closely related to playing God), 'bio-liberal' proponents of human enhancement point to the potential benefits of

endowing people with levels of intelligence and strength that they would not naturally be able to acquire. This could enable people to better modulate their emotions, help them to extend their life-spans beyond what is naturally possible, and so

on. Unsurprisingly, many bio-conservatives are sceptical of these alleged benefits.

Anyone who is familiar with the debate about the ethics of human enhancement will have noticed that it has been extremely polarised, with the two sides in the debate often talking past one another and appealing to different and incompatible underlying values.

One useful response this sense of polarisation has elicited has been to prompt some scholars to reject the implicit assumption that they must be either wholly for or against human enhancement. As a result the debate has now entered a new phase. It is no longer a simple debate between those who are for enhancement and those who are against it. Increasingly many participants in this new phase of the debate take nuanced 'bio-moderate' positions, endorsing some human enhancements and not others, and endorsing human enhancement under some circumstances and not others.

The Ethics of Human Enhancement: Understanding the Debate, edited by Steve Clarke, Julian Savulescu, Tony Coady, Alberto Giubilini and Sagar Sanyal, is due to be published by Oxford University Press in October 2016. In this edited collection leading academic philosophers and bioethicists take stock of the debate about the ethics of human enhancement.

The collection is divided into two sections. Section One is devoted to understanding the contemporary debate about human enhancement. Some of the authors

T IS NO LONGER A SIMPLE DEBATE BETWEEN THOSE WHO ARE FOR ENHANCEMENT AND THOSE WHO ARE AGAINST IT NCREASINGLY MANY PARTICIPANTS IN THIS NEW PHASE OF THE DEBATE TAKE NUANCED 'BIO-MODERATE' POSITIONS.

> contributing to this section help us to look at the debate with new eyes, identifying points of comparison with other academic debates.

For example, Linda Barclay draws out connections between the debate about the ethics of human enhancement and the academic literature on disability advocacy (Chapter Five), while John McMillan points out commonalities between the contemporary debate about the ethics of human enhancement and an early Twentieth Century debate about the ethics of assisted reproduction (Chapter Seven).

Another contributor to this section is Rob Sparrow, who asks us to carefully consider whose interests are at stake in discussions about whether or not to enhance the next generation (Chapter Nine). He

IMAGE: © Jim H. - Flickr

ONIORB

THE ETHICS OF HUMAN ENHANCEMENT





Editor by STEVE CLARKE, JULIAN SAVULESCU, C.A.J. COADY, ALBERTO BIUBILINI & SAGAR SANYAL

THE ETHICS OF HUMAN ENHANCEMENT: UNDERSTANDING THE DEBATE

(Oxford University Press) is available in hardback from **www.oup.com.au** and bookstores. holds that this issue has not received the consideration that it deserves in the contemporary debate about the ethics of human enhancement. We might be concerned about the interests of the child who is to be enhanced, the parents who are to raise that child, and/or the world into which that child will be born.

Sparrow also argues that we should be wary of allowing national governments to make decisions about whose interests matter the most in decisions about whether or not to allow or promote particular human enhancements. Governments, as he notes, tend to act in the interests of the state, the nation and 'the people', and their actions may be very bad for children and for their parents. Yet another contributor to this section is John Weckert, who attempts to determine (far more rigorously than I have done above) what might be problematic about playing God (Chapter Six).

Section Two of the collection contains essays that are devoted to taking the debate about the ethics of human enhancement in new directions. Several of our authors seek to break down the nowtraditional divide between bio-liberals and bio-conservatives. Rebecca Roache and Julian Savulescu do this by turning a wellknown bio-conservative argument, due to Francis Fukuyama², back on itself and recasting it as a qualified line of argument in favour of enhancement (Chapter Ten).

Fukuyama worries that in the process of becoming enhanced beings, humans will lose some difficult-to-define aspect, or aspects, of what it is to be human, which is valuable to us. He does not claim to know what this is and names it 'Factor X' in order to be able to discuss it. For the sake of argument, Roache and Savulescu accept that Factor X should not be lost. But suppose, they ask us to imagine, that scientists manage to develop a technology that enhances Factor X. Fukuyama can hardly object to the use of this sort of enhancement technology, as it involves creating the very quality or qualities that, he argues, humans should possess.

This argumentative strategy can also be applied (as Roache and Savulescu point out) to other qualities that, it has been argued, the enhanced might lack. For example, some conservatives, including Leon Kass, worry that the enhanced might lack humility, dignity, and/or wisdom.³ But it is possible that all of these qualities could be enhanced, and it is hard to see how those conservatives who worry about the loss of these qualities, would have grounds to complain about their enhancement.

They might try arguing that there is such a thing as too much humility, dignity, wisdom, or indeed Factor X. But such a line of argument could not tell against all instances of enhancing humility, dignity, wisdom, or Factor X. It could only tell against enhancing levels of humility, dignity, wisdom, or Factor X above optimal levels. It might perhaps be supposed that all of us are already at optimal levels of humility, dignity, wisdom and/or Factor X. But this seems like wishful thinking. It is also thinking that flies in the face of the general view of conservative political tradition, and many, but not all, bio-conservatives are also political conservatives – which stresses

Some conservatives, including Leon Kass, worry that the enhanced might lack humility, dignity, and/or wisdom. **But it is possible that all of these qualities could be enhanced.**

It is easy enough to accept that we should forego enhanced muscles, **but harder to accept that we should forego the opportunity to enhance moral behaviour.**

the shortcomings of ordinary humans, their lack of wisdom, lack of appropriate humility, propensity to behave in undignified ways, and so on.⁴

Like Roache and Savulescu, Gregory E. Kaebnick seeks to end the polarisation of the debate about the ethics of human enhancement (Chapter Sixteen). He

focuses his attention on the possibility of moral enhancement and he argues that there are good reasons why those who are generally opposed to enhancement should be open-minded about potential moral enhancements.

It is easy enough to accept that we should forego enhanced muscles, but harder to accept that we should forego the opportunity to enhance moral

behaviour, should this arise. The immoral behaviour of the few leads to great harms to the many. People steal, lie and cheat one another on a regular basis, and are sometimes prompted to act violently on the basis of confused moral reasoning. It might be supposed that we could prevent such immoral behaviour by moral education. However, while some moral education is probably better than no moral education, thousands of years of trying this or that approach to moral education has failed to eradicate much of the vile behaviour of which humans are capable.

If we could ameliorate immoral behaviour by the use of drug therapies, or medical procedures, then it is hard to see why we should not do so. The case for moral enhancement should be particularly appealing to those who see themselves as working within the conservative political tradition, which has always stressed the propensity of individuals to behave selfishly, foolishly and capriciously.⁵

While Roache and Savulescu, and Kaebnick, consider forms of enhancement

that someone who is generally opposed to enhancement might be persuaded to accept, Nicholas Agar considers a form of enhancement which, he argues, someone who is generally in favour of enhancement ought to oppose (Chapter Thirteen).

This is 'mind-uploading', the transferring, of copies of the contents of human minds onto computers. Once uploaded onto a

computer a copy of a mind could, at least in theory, live forever. Agar argues that while we may, in principle, be able to copy many aspects of ourselves onto computers, at some point in the future, it will not be possible to transmit our identities onto computers. So, mind-uploading cannot be a way of enhancing *ourselves*.

I am sometimes told that we needn't worry about human enhancement because

IMAGE: © Tom Woodward - Flickr

this is 'all just science fiction'. People who respond this way to debates about the ethics of human enhancement do not appreciate how fast the relevant science is developing. Some forms of human enhancement are already here. We can already improve human eyesight above the normal upper limit for our species⁶, and we can create prosthetic limbs that are capable of outperforming ordinary flesh and blood limbs.7 We can also improve particular cognitive functions via deep brain stimulation and transcranial magnetic stimulation.⁸ We can't upload our minds onto computers yet, but this possibility may not be all that far off. In 2013 Ray Kurzweil, director of engineering at Google, predicted that we will be able to upload our entire minds onto computers by 2045.9 Other wellknown figures who have predicted that we will be able to upload our minds into computers include Nick Bostrom, Stephen Hawking, and Marvin Minsky.

The publication of *The Ethics of Human Enhancement: Understanding the Debate* marks this new phase in the debate about the rights and wrongs of human enhancement. Nuanced arguments by a slew of prominent international philosophers and bioethicists are contained within it. As well as the authors already discussed, contributors include Allen Buchanan, Tony Coady, Michael Hauskeller, Guy Kahane, Jeanette Kennett, Russell Powell, Michael Selgelid and Bernadette Tobin.

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REFERENCES

Smart Cities: Socio-Technical Innovation for Empowering Citizens

- 1 https://cities.dpmc.gov.au/smart-cities-plan.
- 2 Harrison, C. and I.A. Donnelly. A theory of Smart Cities, the 55th Annual Meeting of the ISSS-2011, Hull, UK. 2011.
- 3 Giffinger, R., et al., Smart cities-Ranking of European medium-sized cities. 2007, Vienna University of Technology.
- 4 Manville, C., et al., Mapping smart cities in the EU. 2014.
- 5 Nati, M., et al., SmartCampus: A user-centric testbed for Internet of Things experimentation, the 16th Int'l Symposium on Wireless and Personal Multimedia Communication, 2013.

Discordant Voices: How Choir Music Helped to Shape our Parliaments

- 1 MacKechnie, A. (2002). 'Housing Scotland's Parliament, 1603-1707', Parliamentary History, 21, 1, 108.
- 2 MacKechnie, 109.
- 3 See, for example, Thomas, P.D.G., (1971). The House of Commons in the Eighteenth Century (Oxford University Press: Oxford), 1-2, and Shepherd, R., (2012). Westminster: a biography from earliest times to the neveral (Bloomsbury Academic: London). 133-134
- 4 Hawkyard, A., (2002). From Painted Chamber to St Stephen's Chapel: The Meeting Places of the House of Commons until 1603', Parliamentary History, 21, 1, 77.
- 5 Wilkinson, C., (2002). Politics and Topography in the Old House of Commons, 1783-1834', Parliamentary History, 21, 1, 151.
- 6 Goodsell, C.T., (1988). 'The Architecture of Parliaments: Legislative Houses and Political Culture', British Journal of Political Science, 18, 3, 293-294 and Myers, A.R., (1975). Parliaments and Estates in Europe to 1789 (Thames and Hudson: London).
- 7 Taylor, L.R. and Scott, R.T., (1969). 'Seating Space in the Roman Senate and the Senatores Pedarii', *Transactions and Proceedings of* the American Philological Association, 100, 572-575.
- 8 Kelsey, S., (2002): 'Housing Parliament: Dublin, Edinburgh and Westminster, *Parliamentary History*, 21, 1, 6.
- 9 Hawkyard, 80-81.
- Antiphonal and Responsorial Singing, <u>http://www.smithcreek</u> music.com/Hymnology/Early.Hymnody/Antiphonal.html.
- 11 Cohen, D.E., (2001). 'The Imperfect Seeks Its Perfection: Harmonic Progression, Directed Motion, and Aristotelain Physics', *Music Theory Spectrum*, 23, 2, 142-143.
- 12 Goodsell, 296, and Rizzoni, G., (2009). 'Political Architecture and the Seduction of Place: The Forms of Parliaments and European Identity', in Rorato, L. and Saunders, A. *The Essence and the Margin*:

Indefinite Disinformation: The Political Capital of Fear

On 18 April 1946, quoted in *Nuremberg Diary* by Gustave Gilbert (Farrar, Straus & Co 1947).

- 6 https://www.adelaide.edu.au/ecoversity/
- http://www.environment.sa.gov.au/Science/Science research/climate-change/
- climate-change-initiatives-in-south-australia/sa-climate-change-strategy/carbon-neutral-adelaide https://www.facebook.com/greensmartcampus.
- inteps://www.iacebook.com/greensmartcampus.
- 9 ARUP, The smart city market: opportunities for the UK, 2013, BIS, London, UK.
- 10 Saunders, T., Baeck, P., Smart Cities From the Ground Up, Nesta, 2015, www.nesta.org.uk.

National Identities and Collective Memories (Editions Rodopi Amsterdam), 184.

- 13 See Plenim. Places of Power, <u>http://www.places-ofpower.org/</u> wiki/index.php?title=Main Page.
- 14 Patterson, S.C., (1972). 'Party Opposition in the Legislature: The Ecology of Legislative Institutionalization,' *Polity*, 4, 3, 348-349.
- 15 Magnusson, T., (2014). 'Seating arrangements in the Althingi', paper delivered to the Association of Secretaries General of Parliaments. The Inter-Parliamentary Union, <u>http://www.irpa.is/</u> article/view/1592.
- 16 Goodsell, 295.
- 17 See Koehler, C.T., (1980). 'City Council Chamber Design: the Impact of Interior Design upon the meeting process', *Journal* of Environmental Systems, 10, 1, 53-79, Goodsell, C.T., (1988a). The social meaning of civic space: studying political authority through architecture (University Press of Kansas: Lawrence, Kansas, Goodsell (1988), 287-302, Parkinson, J., (2012). Democracy and Public Space: The Physical Sites of Democratic Performance, (Oxford University Press: CxKorol) and Parkinson, J., (2013). 'How Legislatures Work – and should work – as public space', Democratization, 20, 3, 438-455.
- 18 Nancy Astor, Hansard, Commons, 28 October 1943.
- 19 Sawyer, M., (2000). 'Parliamentary Representation of Women: From Discourses of Justice to Strategies of Accountability', International Political Science Review, 21, 4, 369.
- 20 Hawkyard, 79, Goodsell, 295, Wilkinson, 161 and Thomas, 136-137. 21 Goodsell, (1988), 298.
- 22 Lin, C-C. and Machidori, S., (2014). 'International Spread of Chamber Designs and Their Effects in the Asia-Pacific', Paper delivered at the Australian Political Studies Association Conference, 2014 <u>https://www.researchgate.net</u> <u>publication/272306615 International Spread of Chamber</u> <u>Designs and Their Effects in the Asia-Pacific</u>

A Brave New World: Understanding the Ethics of Human Enhancement

- For further discussion of the charge of Playing God'see C. A. J. Coady (2009) 'Playing God', in J. Savulescu and N. Bostrom (eds.) *Human Enhancement*, Oxford: Oxford Liniversity Press. pp. 155-180.
- Oxford: Oxford University Press, pp. 155-180. Fukuyama, F. (2002). *Our Posthuman Future*. New York: Farrar, Straus and Giroux.
- Kass, L (2003). 'Ageless Bodies, Happy Souls: Biotechnology and the Pursuit of Perfection', *The New Atlantis*, Spring, 9-28.
 Kekes, J. (1998). A Case for Conservatism. Ithica: Cornell University Press;
- 4 Kekes, J. (1998). A Case for Conservatism. Ithica: Cornell University Press; Scruton, R. (2001). The Meaning of Conservatism, Third Edition. Houndsmills: Palorave.
- 5 Kekes, J. (1998). A Case for Conservatism. Ithica: Cornell University Press; Scruton, R. (2001). The Meaning of Conservatism, Third Edition. Houndsmills. Palorave.
- Saletan, W. (2005). The Beam in your Eye: If Steroids are Cheating why isn't LASIK?, Slate, April 18th. <u>http://www.slate.com/id/2116858/</u>
- 7 Buchanan, A. (2011). Beyond Humanity?: The Ethics of Biomedical Enhancement. Oxford University Press: Oxford.
- 8 Vedder, A. and Klaming, L. (2010). "Human Enhancement for the Common Good: Using Neurotechnologies to Improve Eyewitness Memory", *American Journal of Bioethics – Neuroscience*, 1, 3, 22-33.
- 9 Woollaston, V. (2013). 'We'll be uploading our entire MINDS to computers by 2045 and our bodies will be replaced by machines within 90 years, Google expert claims' Daily Mail, 20 June: <u>http://www.dailymail.co.uk/</u> sciencetch/article-2344398/Google-futurist-claims-uploading-entire-MINDS-computers:2045-bodies-replaced-machines-90-years.html

- 23 McRae, K.D., (1997). 'Contrasting Styles of Democratic Decisionmaking: Adversarial versus Consensual Politics', International Political Science Review, 18, 3, 279-295.
- 24 Anderson, C.J., and Guillory, C.A., (1997). Political institutions and Satisfaction with Democracy: Cross-National Analysis of Consensual and Majoritarian Systems', *American Political Science Review*, 91, 1, 66-81.

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