

# A New Agenda ... Values, World Society, Modelling

<https://sites.google.com/site/gordonburmathsocsci/home/a-new-agenda>

*A New Agenda* seeks to explore all aspects of society using all the academic disciplines paying special attention to values ... with special interest in modelling ... not disinterested in practice ... and aspiring to high academic standards.

## Commentary, December 2016

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## **CRS in Oxford, September 2017**

<http://conflictresearchsociety.org/ourevents/crs-conference-oxford-2017/>

The next CRS conference will be held in hosted by the Changing Character of War Programme, Pembroke College, Oxford University, Monday September 18<sup>th</sup> and Tuesday 19<sup>th</sup> September, 2017.

### Ending Violence in Turbulent Times: Exploring the Conflict, Peace and Violence Nexus

Our annual conference will be hosted by the Changing Character of War programme at Pembroke College, University of Oxford on 18-19 September, 2017. We invite you to submit panel and individual paper proposals that bridge theory, empirics and practice in peace and conflict research.

The conference theme is Ending Violence In Turbulent Times. We are, therefore, particularly keen to invite submissions that discuss the mechanisms underlying the onset, continuation and resolution of all forms of violence, from interpersonal, to criminal, to large-scale organised war. The conference seeks to generate debate and relationships between scholars and practitioners interested in key issues surrounding the dynamics of violent political conflict, dialogue, diplomacy and peacebuilding. The conference will continue its tradition of multi-disciplinary focus and is open to the full range of quantitative and qualitative methodological approaches to the subject.

The Changing Character of War Programme (CCW) is devoted to the interdisciplinary study of war and armed conflict. It is a successful, policy-relevant research programme based in Pembroke College, University of Oxford, and enjoying global influence and international partnerships. Directed by Dr Robert Johnson and Dr Annette Idler, with a Programme Committee chaired by Professor Dominic Johnson and a large number of Research Associates, CCW is unique in its delivery of high-quality, high-impact research, combined with practice, policy and advisory engagement. The CRS is delighted to be working with CCW on this year's conference. The Keynote speakers and winner of the Conflict Research Society Book Prize will be announced in the new year. In recent years the book prize winners have included Steven Pinker for *The Better Angels of Our Nature*, Kathleen Cunningham for *Inside the Politics of Self-Determination*, Joshua Goldstein for *Winning the War on War: The Decline of Armed Conflict Worldwide*, Kevin Avruch for *Context and Pretext in Conflict Resolution* and Kristin M. Bakke for *Decentralisation and Intrastate Struggles: Chechnya, Punjab, and Québec*.

We will be emailing you more details on the keynote events shortly, but for now we would like you to make a note of the date in your diaries and submit your proposals.

Individual and panel proposals should be submitted online by March 17, 2017. Panel Proposals should include a title, abstract (less than 200 words) and a list of four papers. Individual paper proposals should likewise include a title and abstract. To submit our proposal please visit the conference [website](#).

Looking forward to seeing you in 18-19 September, 2017 for another great conference!

Best regards,  
Programme Chairs 2017

## **Also at Oxford**

### OxPeace Conference 2017 : 'Positive Peace: Concepts and Practice'

Saturday 6 May at St John's College, Oxford, with Conference Dinner on Friday 5 May

Speakers include: Lord Alderdice (Centre for Resolution of Intractable Conflicts), Phil Vernon (Programme Director, International Alert) on positive peace in peacebuilding programmes, Mark Segal (Senior Conflict Adviser, DFID) on SDGs, James Smith (Aegis Trust) on peace education, John Curtis OBE (Iran Heritage Foundation, former Keeper of the Mesopotamian Galleries, British Museum) on preserving cultural heritage, Gwen Burnyeat ('Chocolate of Peace', Colombia); inputs on children in transitional justice, technology in consolidation of peace, peace in Cyprus, extremist concepts of peace, etc.

### A launch of the 2017 Global Peace Index ...

... will be held in Oxford. Thursday 8 June.

## **The 2016 Yearbook: Values, World Society and Modelling**

first draft of Overview with online links to Commentary

The framework for the 2016 Yearbook is the same as that for the previous two Yearbooks. It continues the themes which were emphasised in the 2015 Yearbook: wellbeing, relationships and 'our values'; and time and space – geographical space, political space, value space, social space and psychological space.

### **1 World society, 2016: the headlines and the statistical accounts**

How should we characterise world society in 2016? Should we look at the headlines and the reports of journalists in the newspapers? ... or should we look at the statistical accounts? Both are informative. Both sensational events and prosaic events did indeed occur in 2016. Also the sensational events of 2016 were different from the sensational events of previous years ... and these same general remarks about 2016 could also have been made a year ago about 2015. That is what one would expect from a complex system like world society. Combining these various thoughts we can characterise 2016 as:

differently sensational and prosaic as usual

a mixed year – a somewhat different variety of events as usual

some things stayed the same; not so many changed

some things changed a little; not so many changed a lot

some things continued in the same direction; not so many changed direction

some things improved; not so many things deteriorated

Consider the last of these statements. Let us compare the things that improved with the things that deteriorated. Consider the balance between improvement and deterioration ...

### Net improvement

Net improvement can be said to occur if improvement outweighs deterioration. “Never forget that we live in the best of times. There has been much to mourn in 2016 but by almost every measure the world is becoming wealthier and fairer.” In particular world GDP per capita growth in 2016 is likely to be around the level it has been at in recent years, namely between 1% and 2% - so not the high 3% enjoyed in the period 2004 to 2007 and not the low of -3% in 2008.

Collins, Philip. “Never forget that we live in the best of times. There has been much to mourn in 2016 but my almost every measure the world is becoming wealthier and fairer.” *The Times*, December 23, 2016: 27.

Kamm, Oliver. “It is difficult to escape a sense of trouble ahead for the global economy.” *The Times*, December 22, 2016: 41.

World Bank. World GDP per capita growth (%), 1961-2015.

<http://data.worldbank.org/indicator/NY.GDP.PCAP.KD.ZG?end=2015&start=1961&view=chart>

GDP per capita growth (annual %)

World Bank national accounts data, and OECD National Accounts data files. World Development indicators. Table 1.1.

<http://wdi.worldbank.org/table/1.1>

<https://ourworldindata.org/economic-growth>

See also the 2014 Yearbook (Burt, 2016, “Things are getting better”, 138-139; and “Growth and inequality”, 207-210); and the 2015 Yearbook (Burt, forthcoming, Chapter 7, “Time series: social value, violence and population.”).

### Deterioration

Deterioration – including the appalling events which we read about in the news headlines - and stagnation exist alongside net improvement.

Andy Haldane, chief economist at the Bank of England has noted that “the rising economic tide has not lifted all boats”. Mark Carney, Governor of the Bank of England, has talked about “the distributional consequences of rapid changes in technology and globalisation”; “... the challenge is how to manage the forces of innovation and integration, which breed aggregate prosperity for the economy as a whole but which also foster isolation and detachment for substantial proportions of the population.” Joseph Stiglitz argues that “to let economic integration outpace political integration” will end in failure.

Aldric, Philip. “How can you trust economists when they were wrong about everything?”. *The Times*, Friday December 24, 2016: 49.

Stiglitz, Joseph. *The Euro. How a common currency threatens the future of Europe*. Allen Lane. 2016.

<https://www.amazon.co.uk/d/Books/Euro-How-Common-Currency-Threatens-Future-Europe/039325402X>

Deterioration: substantial percentages of people are worried.

A majority of people (63%) think their country is going in the wrong direction but countries in the BRIC and APAC regions tend to be more optimistic. People’s concerns are about unemployment (38%) with Spain most worried; about poverty and social inequality (34%) with Hungary and Russia most worried; about financial and political corruption (33%) with South Korea most worried; about crime and violence (29%) with South and Central America most worried; about healthcare (22%) with Hungary most worried. Turkey is most worried about terrorism; the UK is most worried about immigration; and in Germany worries are crime and violence (42%), poverty and inequality (48%) and immigration (37%).

“What Worries the World” is a monthly online survey of adults aged under 65 in Argentina, Australia, Belgium, Brazil, Canada, China, France, Britain, Germany, Hungary, India, Israel, Italy, Japan, Mexico, Poland, Peru, Russia, Saudi Arabia, South Africa, South Korea, Spain, Sweden, Turkey and the United States.

<https://www.ipsos-mori.com/Assets/Docs/Polls/What-Worries-the-World-Nov-2016-Great%20Britain-charts.pdf>  
<https://www.ipsos-mori.com/researchpublications/researcharchive/3818/Further-decline-in-Britons-thinking-country-going-in-right-direction.aspx>

## Technology

“Will a robot take over your job? From courts of law to the factory floor, technology is doing a better job than humans.”

“The future of work: automation puts millions of jobs in jeopardy. We need radical ways to redistribute wealth.”

“Progress towards a fully-automated economy suffers from a profound tension. On the one hand, technological progress depends on human effort. Human effort is, in general, decreasing in the amount that effort is taxed. On the other hand, the more the economy is automated, the more redistribution could be required to support the living standards of the less skilled. The less skilled could even become unemployed, and the unemployed could eventually comprise the majority of the population. The higher the fraction unemployed, the higher must be the tax burden on those who are productive in this new economy.

At first glance, then, the more technological progress we make, the more we will be forced to disincentivize further progress. Yet, it is possible that some paths of tax and subsidy policy could lead to vastly improved social welfare a few decades hence compared to others. Some paths might avoid altogether the scenario sketched above. This project seeks to characterize the path of optimal policy in the transition to a fully-automated economy. In doing so, it would answer directly the question of how we maximize the societal benefit of AI.”

Bridge, Mark. “Will a robot take over your job? From courts of law to the factory floor, technology is doing a better job than humans.” *The Times*, December 10, 2016: 19.

<https://www2.deloitte.com/uk/en/pages/finance/articles/robots-coming-global-business-services.html>  
<https://www2.deloitte.com/content/dam/Deloitte/uk/Documents/finance/deloitte-uk-finance-robots-are-coming.pdf>

Avent, Ryan. “The future of work: automation puts millions of jobs in jeopardy. We need radical ways to redistribute wealth.” “Five themes that defined the year.” *The Observer*, December 18 2016: 34-37.

## Globalisation

The global movement of people, goods and services.

### Changing global power

Established global powers experience deterioration relative to rising global powers. “India’s economy surpasses that of Great Britain.” Back in 2012 Peter Navarro wrote his book “Death by China” and now Donald Trump has appointed him trade chief.

By 2030 the ten largest economies will still include USA, China, Japan, Germany, UK, Canada, but China will have overtaken USA and the UK will have fallen from fifth to eighth place, overtaken by India, Brazil and South Korea, with Indonesia occupying tenth place. France and Italy may no longer qualify for G8. The rising nations are characterised by booming populations, huge levels of state investment, growing consumption and increased trade.

Wright, Oliver and Rebecca Hodson. “India’s GDP gives Britain a pounding after 150 years.” *The Times*, December 24, 2016: 19.2.

Akshay Shah. “India’s economy surpasses that of Great Britain.” *Forbes*, December 16, 2016.

<http://www.forbes.com/sites/realspin/2016/12/16/indias-economy-surpasses-that-of-great-britain/#1b397c7639eb>

Rhys Blakely. “Trump names vocal critic of Beijing as trade chief.” *The Times*, Friday December 23, 2016: 32.

Peter Navarro. “Crouching tiger: what China’s militarism means for the world.”

Peter Navarro. “Death by China.” [https://en.wikipedia.org/wiki/Death\\_by\\_China](https://en.wikipedia.org/wiki/Death_by_China)

Knowles, Tom. “Developing nations set to take Britain’s place among economic elite.” *The Times*, Friday December 26, 2016: 41.

CEBR world economies. <https://www.cebr.com/welt-2017/>  
<https://gcp.global/uk/products/welt-2017/press-release/world-economic-league-table-2017-press-release.html>  
The increasing inequality in the West and the relative economic decline of the West are discussed in Burt, 2016, Chapter 11.

### The international class and the local national class

“Progressive parties now have to address the people’s anger. Many voters felt the culture and economy had left them behind. Trump and Brexit were the beneficiaries.”

Sandel, Michael. “Progressive parties now have to address the people’s anger.” *The Times*, December 19, 2016: 34.

Webb, Justin. “Trump’s billionaires are in tune with populism. Lawyers and teachers anger working-class Americans more than a cabinet of the super-rich.” *The Times*, December 19, 2016: 28.

### Western decline

The decline of ‘Western culture’: capitalism, democracy, liberalism, internationalism?  
“For a certain kind of liberal, 2016 stands as a rebuke. If you believe as *The Economist* does, in open economies and open societies, where the free exchange of goods, capital, people and ideas is encouraged and where universal freedoms are protected from state abuse by the rule of law, then this has been a year of setbacks.”

“... a wave of populism is destroying the foundation of the post-war international order”

“The iron law of oligarchy. Donald Trump’s victory has changed politics irrevocably. The age of unchecked globalisation and armed missionaries for liberal values is over. And we are entering a new age of great-power rivalry.”

Leader. “The year of living dangerously. Liberals have lost most of the arguments in 2016...” *The Economist*, December 24 2016: 11.

‘Schumpeter.’ “Capitalism and democracy: the West confronts a future of slow growth, social division and populist revolt.” 86. *The Economist*, December 24 2016: 86.

Gray, John. “The iron law of oligarchy.” *New Statesman*, 18-24 November 2016: 25-28.

Leader. “Trump and the liberal order.” *New Statesman*, November 18-24 2016: 3.

Buruma, Ian. “The decline of the Western order. Across continents, autocrats are in control.” “Five themes that defined the year.” *The Observer*, December 18 2016: 36-37.

Cadwalladr, Carole. “Is democracy itself threatened by tech disruption?” “Five themes that defined the year.” *The Observer*, December 18 2016: 37.

Rosemary Bennett. “Migrants ordered to adopt liberal values and culture.” *The Times*, December 5, 2016: 2.

Sylvester, Rachel. “Moderates will be the force for change in 2017. After the year of the populist and strongman, the craving for stability and fairness points to a revival of the centre ground.” *The Times*, December 20, 2016: 31.

Parry, Richard Lloyd. “I’ll hang six criminals a day, boasts Duterte.” *The Times*, December 20, 2016: 40

Leader. “The new nationalism. With his call to put “America First”, Donald Trump is the latest recruit to a dangerous nationalism.” 11. *The Economist*, November 19-25: 11.

Biggar, Nigel. “Liberals are wrong to write off the West. It’s nonsense to claim that western civilisation owes everything to pagan and Islamic forebears.” *The Times*, December 29, 2016: 22.

Appiah, Kwame Anthony. “Mistaken identities.” [... asks us to give up the idea of western civilisation]. Reith Lectures 2016. <http://www.bbc.co.uk/programmes/b081lkj>

### Response: votes for Brexit and Trump

“Progressive parties now have to address the people’s anger. Many voters felt the culture and economy had left them behind. Trump and Brexit were the beneficiaries.”

See however next section.

Sandel, Michael. “Progressive parties now have to address the people’s anger.” *The Times*, December 19, 2016: 34.

Webb, Justin. “Trump’s billionaires are in tune with populism. Lawyers and teachers anger working-class Americans more than a cabinet of the super-rich.” *The Times*, December 19, 2016: 28.

### Does 2016 matter?

If 2016 was a laboratory experiment then our main hypothesis would be that the year’s events produced a significant difference and the null hypothesis would be that

they did not. Some of the writers cited above put forward the main hypothesis: the old order has changed for ever, irrevocably, and we are now entering a new age. For example, *The Times* ends the year with a Leader headline: “Year of revolution. 2016 has been transformational.” Other writers are less dramatic: we still live in the best of times; moderates will resume control; it’s wrong to write off the West; sceptical of Trump’s plan, optimistic despite Brexit, etc. My own view is that one can overplay how different the Brexit and Trump votes were from voting in the past; and that one can overplay how important Brexit and Trump are in comparison with the constants and underlying trends of the system – albeit recognising the uncertainties and the existence of alarming possibilities.

Leader. “Year of revolution.” *The Times*, December 30, 2016: 29.

Knowles, Tom. “Developing nations set to take Britain’s place among economic elite.” *The Times*, December 26, 2016: 41.

As a postscript, the last day of the year offers a reprise of a number of the above themes:

#### Statistics and headlines

“Slogans seem to have counted more than facts and statistics in 2016.”

[But maybe this is a slogan too? GB]

Parris, Matthew. “We’ve been poisoned by political cults. Supporters of Trump and Brexit ignored all logic to buy into a set of beliefs, but it’s a trend that won’t last for ever.” *The Times*, December 31, 2016: 23.

#### Net improvement

Rice-Oxley, Mark, Liz Ford, Fiona Harvey and Kate Hodal. “Reasons to be cheerful. Or why 2016 wasn’t (quite) as awful as you may have thought. [... emissions, disease, death in conflict, crime, connectivity, population, poverty ...].” *The Guardian*, December 31, 2016: 3.

#### Technology

Duncan, Emma. “Rise of the machines can make life better. Rather than be scared by the rate at which jobs are being automated we should rethink our attitude to the benefits of work.” *The Times*, December 31, 2016: 25.

#### Global politics

Parfitt, Tom. “Trump sides with Putin. President-elect praises Russian leader’s response in diplomatic row over hacking.” *The Times*, December 31, 2016: 1.

Savage, Michael. “May comes under attack for rushing to Israel’s defence. [... and attempt to woo Donald Trump ...].” *The Times*, December 31, 2016: 1.

Trew, Bel and Hannah Lucinda Smith. “Russian warplanes support Turks battling Isis in Syria.” *The Times*, December 31, 2016: 41.

Chulov, Martin and Kareem Shabeen. “As Syrian truce holds, Russia and Turkey look for UN backing.” *The Guardian*, December 31, 2016: 18.

Magnus, George. “If Trump means to start a trade war, China cannot afford to back down.” *The Times*, December 31, 2016: 47.

#### Terrorism and refugees

Boyes, Roger. “How terrorists trade in misery. ‘Freak-Terroronomics’ helps to explain the refugee crisis.” *The Times*, *Saturday Review*, December 31, 2016: 12.

Napoleoni, Loretta. *Merchants of men. How kidnapping, ransom and trafficking funds terrorism and Isis*. Atlantic, 2016.

“2016: the global economy in 10 charts”

Allen, Katie. *The Guardian*, December 31, 2016: 26.

Oil prices increased by more than 50%

Gold lost some of its shine after Trump win

The pound tumbled (helping the FTSE 100)

The Dow soared as Wall Street hopes rose

China's economy continued to slow  
Threats by Trump knocked Mexican peso  
Japan's banking shares lifted by policy change  
Eurozone inflation was way below target  
Youth unemployment remained high in Italy

## 2 Wellbeing, discourse and death - statistics and headlines

Wellbeing, discourse and death are central to people's values. News headlines often tell of low wellbeing, hateful discourse and violent death. The statistics provide a more representative – and more positive – account. In particular the finding that on average the average individual has 'halfway positive' wellbeing is important to bear in mind when we look at people's dissatisfaction with politics and with other aspects of society. Considerate discourse provides a positive alternative to hate.

We judge situations according to their value; and in our choices we pursue value. One aspect of value is subjective well-being – which itself is a multidimensional concept. Recent studies of wellbeing find that on average the average individual has 'halfway positive' wellbeing. Also, most individuals have around 'halfway positive' wellbeing, most of the time. The life of an individual involves a variety of activities and different individuals have different activity mixes. Activities vary in their capacity to generate happiness. In particular intrinsic activities generate more happiness than do instrumental values. Activity situations are multidimensional and a variety of factors affect the impact on happiness. Different groups – defined by a variety of social attributes - have different wellbeing. However variation between groups is very much less than variation between individuals. Changes in social attributes – for example, changes in geographical or relationship location - are associated with changes in wellbeing.

Commentary 26, 4-16

<https://docs.google.com/viewer?a=v&pid=sites&srcid=ZGVmYXVsdGRvbWFpbmxb3Jkb25idXJ0bWF0aHNvY3NjaXxneDplYmJmZDNkOGUwZGE1NzQ>

We then present an analysis of the news headlines which appeared in July 2016: gloom prevails. However a leader in the Observer notes a 'disconnect between the objective reality of present-day conflict... and the language and terminology used to describe it' and seeks to counteract the 'exaggerated, disproportionate sense of the dangers presented by our own times'. Quakers talk about 'something of God in all of us' while Howard Jacobson talks about 'the stain of racism in all of us' ... perhaps we can find both some good and some bad in everyone'? [Rude and hateful discourse versus a more polite discourse and a more balanced approach in the treatment of news and of individuals – a letter of advice.] The headlines for one specific atrocity are considered in relation to a variety of other killings and to the statistics for different causes of death. The psychology of killers is considered and cultures of killing are considered, focusing on the gun culture of the USA.

Commentary 31, 1-10

<https://docs.google.com/viewer?a=v&pid=sites&srcid=ZGVmYXVsdGRvbWFpbmxb3Jkb25idXJ0bWF0aHNvY3NjaXxneDo2NTRiNzdiYWQzNjQxZWlw>

### 3 Love and hate: Shakespeare's *Romeo and Juliet* ... the Jane Austen debate

From the wellbeing statistics and journalistic accounts of the previous chapter we now turn to the portrayals of life and society offered by literature. It has been argued that literature - and the humanities in general - can provide a powerful insight into how individuals engage with society (Burt, 2016, 70).

The year 2016 was the 400<sup>th</sup> anniversary of Shakespeare's death and three years ago was the 200<sup>th</sup> anniversary of the publication of Jane Austen's *Pride and Prejudice*. The chapter starts with an analysis of Shakespeare's *Romeo and Juliet*. It is a play in which the love between Romeo and Juliet is tragically ended by the enmity between the two ruling families of Verona. Hate destroys love – so hate must stop. Like an earlier analysis of *A Midsummer Night's Dream*, the analysis is framed in terms of mathematical concepts (Burt, 2012). The chapter then considers Jane Austen. Helena Kennedy's *Jane Austen: the secret radical* was published in October. The book joins the long-standing debate about Jane Austen. "Like Shakespeare and Orwell, Jane Austen is a writer whose admirers all claim her for their own point of view ...". The debate is characterised by attachment, disagreement and escalation.

Commentary 18S, 13-15

<https://docs.google.com/viewer?a=v&pid=sites&srcid=ZGVmYXVsdGRvbWFpbnxnb3Jkb25idXJ0bWF0aHNvY3NjaXxneDoyMmIxNDdiYmExYWU0OTQ1>

Social Modelling Note 20

<https://docs.google.com/viewer?a=v&pid=sites&srcid=ZGVmYXVsdGRvbWFpbnxnb3Jkb25idXJ0bWF0aHNvY3NjaXxneDpiMGUyNDI4OWJhNWExYWI>

### 4 'Our values': religion

When we explain and justify what we are and what we do we sometimes appeal to 'our values'. Sometimes we make strong claims about 'our values': they are unanimously held, universal, exceptional, good and safe (Burt, 2016, Chapter 6). Likewise we claim 'our beliefs' are true and 'our actions' are good. 'Our' refers to some social group which we belong to, for example a nation or a religion. The 2014 Yearbook looked at the debate, "is Britain Christian?" (Burt, 2016, 94-104). The 2015 Yearbook discussed the support to people's lives provided by families, education, communities and religions (Chapter 3); and how the Enlightenment clashed with religions such as Islam and Christianity (Chapter 4). Now, in this chapter, we explore religion in greater depth.

In 2015 the Pew Research Center presented projections for the population growth of world religions for the period 2010-2050. During Autumn 2015 and Winter 2016 the British Academy conducted a series of debates about faith ...

Is religion true? People use the word 'God' and invoke religion in a variety of contexts - referring respectively to the universe, living things, afterlife, spiritual experience, life and society, gender, positivity and truth. What do God and religion signify in each of these contexts? If one accepts the existence of God in any one of the contexts, does one necessarily accept it in any of the other contexts? Suppose one accepts the existence of a God in all the contexts, are there many separate gods – or just one God present in all contexts? The contexts are also the province of various academic disciplines: the sciences of physics and biology; the social sciences of psychology and sociology; and the humanities disciplines of literature and

philosophy. So we are led to the question, how do the accounts of these topics in religion compare with the accounts of the topics in academic disciplines?

Is religion good? Religion is seen by some as providing an image of a negative society. Are wars due to religion? Is terrorism due to religion? Is Islamic State Islamic? Steven Pinker has suggested that the Hebrew Bible is one long celebration of violence. Tom Holland has argued that Muhammad comes in many forms, both a moral leader and a war leader. Seeking to appraise these various ideas, we deploy the propositional calculus, the statistical analysis of texts and a more wide-ranging historical analysis. The views of Waltzer and Sacks are noted. Are religious statements true and are religious arguments logical? Arguments relating to strict religious truth, to the authority of sacred texts and to the ordination of women bishops are formulated in terms of the propositional calculus. Asking, is religion a ‘Source of moral values’? ... or ‘one long celebration of violence’, texts are analysed and the Positive Speaking Quotient (PSQ) calculated: Sachs 63%; Moses 21%; Jesus 66%. In appraising religion there is a need to consider its history and diversity. The history of Christianity and Islam ... of Europeans and Arabs ... the myth of homogeneity and the reality of heterogeneity is considered.

In his 2016 New Year’s Day homily the pope said that, every day, negative signs make us doubt the presence of God. This suggests a mathematical model: a set of possible ‘god-worlds’ differing in terms of existence, power, constancy and value.

Commentary 25, 10-34

<https://docs.google.com/viewer?a=v&pid=sites&srcid=ZGVmYXVsdGRvbWFpbmxb3Jkb25idXJ0bWF0aHNvY3NjaXxneDo1N2ViM2NmOWY1NDkwNjFi>

## **Part II World Society**

### **5 World society in 2016**

The year 2016 has consisted of ‘a somewhat different variety of events as usual’ – as one would expect from a complex system like world society. Net improvement has been accompanied by deterioration, appalling events and stagnation. Substantial percentages of people are worried about the way things are going in the world (but possibly half-way satisfied with their own experience of life – see Chapter 2). Rapid changes in technology and globalisation have distributional consequences. Established global powers experience deterioration relative to rising global powers. An international class benefits while the local national class is left behind. Some are concerned about a decline of ‘Western culture’: capitalism, democracy, liberalism and internationalism. It has been argued that the votes for Brexit and for Trump represent the reaction of those who have these concerns in mind. Does 2016 matter? Some argue that the year has been transformative but others are more reserved.

See above:

1 World society, 2016: the headlines and the statistical accounts

### **6 Abnormal situations ... intervention ... “armed missionaries for liberal values”**

News headlines are not wrong: abnormal situations do occur. For normal situations, we have ready-made responses. For abnormal situations, we need to consider whether

and how to respond ... and in conflict situations whether to adopt a conflict resolution response or to become a partisan conflict participant.

“The iron law of oligarchy. Donald Trump’s victory has changed politics irrevocably. The age of unchecked globalisation and armed missionaries for liberal values is over. And we are entering a new age of great-power rivalry.”

John Gray. “The iron law of oligarchy.” *New Statesman*, November 18-24 2016: 25-28.

It is interesting to check Gray’s notion of “armed missionaries for liberal values” against what I wrote in 2011 about intervention in Libya (pages 19-20 cover Syria then):

*Obama, the financial crisis, the Arab Spring and Libya – the lessons of history and mathematical social science*

Talk

<https://docs.google.com/viewer?a=v&pid=sites&srcid=ZGVmYXVsdGRvbWFpbmxb3Jkb25idXJ0bWF0aHNvY3NjaXxneDoyNGQzMVhYzJiYWewYjFk>

Slides

<https://docs.google.com/viewer?a=v&pid=sites&srcid=ZGVmYXVsdGRvbWFpbmxb3Jkb25idXJ0bWF0aHNvY3NjaXxneDoxZjI5N2RjYzA3OGJjZmE4>

## **7 Time series: Ireland, 1801-1916-2016, political configurations and trajectories**

This chapter continues the work on times series in the 2015 Yearbook, particularly the study there of UK general elections, 1945 to 2015 (Chapter 12). Here, prompted by the 2016 general election and the centenary of the Easter Rising, we look at Ireland, before and after 1916. The year 1916 was a turning point with the old political configuration giving way to a new political configuration. The past few decades have seen a decline in support for the two dominant parties.

A general election was held in Ireland on 26 February 2016. The top three parties – Fine Gael (FG), Fianna Fáil (FF) and Sinn Féin (SF) - can all trace their origins back to the Sinn Féin of 1916. The timeline of Ireland’s history is noted from prehistoric times with subsequent recorded invasions by the Romans, Christianity, the Vikings, the Normans, the English and the British. In 1801 ‘The United Kingdom of Great Britain and Northern Ireland’ was established. In the nineteenth century the electoral dominance of the two British parties, Tories and Whigs, gave way to the dominance of the Home Rule party; the First World War, the postponement of Home Rule and the Easter Rising in 1916 and its suppression were the prelude to Sinn Féin’s dominance in the 1918 election – with a Unionist presence in the North. The 1922 election in the South split pro-Treaty Sinn Féin and anti-Treaty Sinn Féin. By 1937, this split had transformed into two parties, Fine Gael (FG) and Fianna Fáil (FF) which have continued to dominate Ireland’s elections ever since.

The chapter focuses on a statistical analysis of governments and election results in the period 1919-2016. The start of the period exhibited transition volatility in terms of the identity of the major parties. Single-party majority governments with consecutive wins at the start have given way to coalition minority governments often with a single term of office. The average over the period has given FF 44% of the seats, FG 33%, Labour 11% and Independents 5%.

The trajectories of parties’ shares of seats are correlated and a principal component analysis finds five components: (C1) ‘FF versus Indep, SF and Other’, 38% of the

variation; (C2) 'FG and Labour versus the rest', 28%; (C3) 'Labour versus FG and Independent', 15%; (C4) 'Independent and Labour versus Sinn Fein', 10%; and (C5) 'Sinn Fein versus Other', 9%. Parties and elections are located in C1-C2 space. Rotating the axes gives U1-U2 space with short-term fluctuations in the U1 direction and long-term change in the U2 direction.

The size of the electorate has doubled in the second half of the period – with roughly corresponding changes in a number of other variables. The number of parties contesting the election correlates: positively with the size of the electorate; negatively with the turnout; negatively with the percentage vote for the largest party (and negatively with the seat share for the dominant party FF); and the percentage vote for the largest party is negatively associated with the presence of a coalition. Also party percentages are related to turnout.

Commentary 27, 1 – 18:

<https://docs.google.com/viewer?a=v&pid=sites&srcid=ZGVmYXVsdGRvbWFpbmxb3Jkb25idXJ0bWF0aHNvY3NjaXxneDozNGM5NGQ2OThkYWZkN2Vl>

## **8 The Brexit referendum: geographical, political, social and psychological spaces**

The concept of an abstract space was a central theme in many of the chapters in the 2015 Yearbook. The concept of space also informs our analysis here of the Brexit referendum. Attention is also given to the analysis of variation within and between groups. A key question is: are the statistics consistent with some of the strong statements which have been made about the results? The vote to leave the European Union has been regarded as one of the most significant events of 2016, a forerunner to what some argue is the even more significant event which will be discussed in the next chapter.

Last week the UK voted to leave the European Union ('Brexit'). Leave had 52% of the vote and Remain had 48%. So on the one hand there was a clear win for Leave; and on the other hand the country was quite evenly divided between the two options.

Advanced economies are not growing as fast as emerging and developing economies. The growth in advanced economies is not shared equally and it is the richer, more educated classes who are benefitting. Remain areas are associated with low manufacturing, high education, high wages and high house prices whereas Leave areas are associated with high manufacturing, low education, low wages and low house prices.

Scottish independence referendum, 2015: % Yes = 20% + 3 (% unemployed)

I have some uneasiness about the way in which words are sometimes used to describe the numbers. Rather than thinking of people in groups it is more precise to differentiate between people and see them as points continuously distributed in some space with each point having an associated probability of voting Leave, specified by an equation. Also it is important to look at variation within units and variation between units.

The social groups more likely to vote Leave were: older, working class, less educated, not of an Ethnic minority, professing an English identity, of the 'objective' Left (class, education) and of the 'expressed' Right (vote, attitude, newspaper readership).

Variation within units is more than variation between units. The UK is divided at a number of different levels into nations, regions and areas (and individuals). The variation within nations is more than the variation between nations – very much more in the cases of England and of Northern Ireland. In England the variation within regions is much more than the variation between the regions. There is within-area variation: even in the second most unanimous area, a fifth of the people oppose the four-fifths majority. Within individuals there is variation also. We are also interested in the shape of the variation, in other words the distribution. The frequency distribution of the Leave percentage for the four hundred areas is unimodal with a skew – more areas are to the higher end than are to the lower end.

The geographical aspect of the between-unit variation in voting percentages is studied using the notion of a perimeter profile. Typically the profile exhibits a combination of global single-peakedness and multiple local peaks, a fractal structure of peakedness. The profiles of England, Wales, Northern Ireland and Scotland are presented. In Northern Ireland, Leave is high on the north and east of the perimeter and low on the south and west. In the other three countries Leave is low in cities and university towns.

The voting areas used in the referendum are the same as the areas used in a recent study of geographical variation in personality. The Big Five form a continuum: from Agreeableness to Conscientiousness to Stability to Extraversion to Openness. The Leave vote has a single-peaked correlation profile on this continuum. Openness has a high correlation with the Remain vote ... and also with higher education, same-sex marriage, foreign-born, Liberal Democrat. London is particularly high on openness.

The areas in Northern Ireland can be located as points in a two-dimensional political space on the basis of voting in the UK general election of 2015. The points form a circle. The percentage Leave vote follows a cyclical pattern on this circle.

Commentary 30:

<https://docs.google.com/viewer?a=v&pid=sites&srcid=ZGVmYXVsdGRvbWFpbmxb3Jkb25idXJ0bWF0aHNvY3NjaXxneDo0NzJhOGVkn2MxYzOyNw>

## **9 USA presidential election, 2016: geography and political space**

The Times stated on 30th July 2016 that if the election were held [that day] Hillary Clinton would have a 47.1% chance of victory and Donald Trump would have a 52.9%

The USA presidential campaign had started the previous year and continued throughout 2016 to become the dominant news story of the year. My analysis in July of the primaries focused on the relationship between political space and geographical space, thus continuing the work of Chapter 8 in the 2015 Yearbook. My analysis in Autumn of looked at the background of political polarisation, the Clinton v Trump campaign, the results and finally a brief overview of the reactions worldwide. As in the previous chapter, a key question is: are the statistics consistent with some of the strong statements which have been made about the results?

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Commentary 31, 14-24:

<https://docs.google.com/viewer?a=v&pid=sites&srcid=ZGVmYXVsdGRvbWFpbmxb3Jkb25idXJ0bWF0aHNVY3NjaXxneDo2NTRiNzdiYWQzNjQxZWlw>

Commentary 35:

<https://docs.google.com/viewer?a=v&pid=sites&srcid=ZGVmYXVsdGRvbWFpbmxb3Jkb25idXJ0bWF0aHNVY3NjaXxneDo2NzA5NDRkNGUxYjUzNThj>

## **10 World sport: individuals, teams and countries**

World sport is an important part of many people’s lives. The 2014 Yearbook considered world chess and world football. It noted that future performance is related to past performance and developed a model in which success depends probabilistically on strength. (Burt, 2016, pp. 259-275; 287-290).

The Olympics is an event involving all the world – it involves competition between individuals, between teams and between countries. What would a world view of the Olympics look like? We cannot rely on the UK press because it concentrates heavily on the performance of the UK. Even when other countries are considered it is usually just the top few. And how should we value a country’s performance? Should a league table be based on total medals or just on gold medals? Should it be the number of medals or the ‘rate’ of medals in relation to population or economic power? A model is presented to help address these questions by setting out the conceptual foundations.

The 2015-2016 English Premier League produced an unexpected outcome: Leicester City were champions. This is a dramatic illustration that past performance predicts future performance only probabilistically.

In 2016, Andy Murray won Wimbledon, won the gold medal at the Olympics, reached world number one ranking and won Sports Personality of the Year. On the last day of the year it was announced that he would receive a knighthood. His fluctuating fortunes on the journey to the number one spot are noted. An analysis of a Wimbledon match is presented.

Commentary 32, 5-10:

<https://docs.google.com/viewer?a=v&pid=sites&srcid=ZGVmYXVsdGRvbWFpbnxnb3Jkb25idXJ0bWF0aHNvY3NjaXxneDo2NTU3YjU0ZmFjODljZmM1>

## Part III Modelling

### 11 Value space and democratic choice: Dublin's Rosie Hackett Bridge

Previous Yearbooks have looked at whether different social choice methods would have produced different social choices in the cases of the referendum on Scottish Independence (Burt, 2016, 193-195) and the 2015 UK election and 2015 UK Labour leadership election (Burt, in preparation, Chapters 10 and 11). Dissatisfaction with the outcomes of the Brexit referendum and of the USA presidential election have prompted similar questioning. The present chapter considers a case where Dublin City Council used the Borda method to decide the name of the newest bridge over the River Liffey.

#### *Dublin City Council's Rosie Hackett Bridge: A Landmark in Decision-Making*

John Baker, Emeritus Professor, School of Social Justice, University College Dublin.

'On 2 September, 2013, Dublin City Council voted to name the newest bridge over the River Liffey the Rosie Hackett Bridge. What makes this a landmark decision is that it seems to have been the first authoritative decision taken by a public body in Ireland – and perhaps even in Europe – to have used the voting procedure known as the Borda Count, referred to in the Council's proceedings as a Preferendum (Dublin City Council 2013a, item 24). This report summarises the process, analyses the results, and discusses some of the technical issues that arise with this method of voting. It concludes that the procedure was well suited to the task in hand.'

<http://static1.1.sqspcdn.com/static/f/220414/24541246/1429003665077/Report+on+Rosie+Hackett+decision-final2.pdf?token=CvMYOzX%2BjG5Hyi9krFBrl0Bjlo4%3D>

'Dublin City Council invited nominations from the public for the bridge's final name. Ten nominations were referred to the council's naming committee, which used a [Borda count](#) to shortlist five names for a plenary meeting of the council, where another Borda count on 2 September 2013 chose to name it after [Rosie Hackett](#), a trade unionist and republican revolutionary.<sup>[13][14]</sup> Hackett had been nominated by three women members of [Labour Youth](#).<sup>[13]</sup> The other four shortlisted were [Willie Bermingham](#), [Frank Duff](#), [Kathleen Mills](#), and [Bram Stoker](#).<sup>[8]</sup> The de Borda institute asserted that the name selection process was the first time an Irish elected chamber used a non-[majoritarian](#) decision-making methodology.<sup>[14]</sup> Some media reports characterised it as the first Liffey bridge named after a woman,<sup>[15][16][17]</sup> though other bridges formerly were.'<sup>[fn.1]</sup>

[https://en.wikipedia.org/wiki/Rosie\\_Hackett\\_Bridge](https://en.wikipedia.org/wiki/Rosie_Hackett_Bridge)

My own interest in the Rosie Hackett Bridge case study is in the voting space exhibited by the votes and I was able to investigate this thanks to Peter Emerson sharing the data with me. The sections of my paper are indicated in Table 1 below.

<https://docs.google.com/viewer?a=v&pid=sites&srcid=ZGVmYXVsdGRvbWFpbmxb3Jkb25idXJ0bWF0aHNvY3NjaXxneDo0YTtk2N2M0ODRIYzO3ZjNi>

**Table 1** Single-peaked preferences? Voting for the name of the bridge over the Liffey

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Dublin City Council use the Borda Count to name a new bridge over the Liffey

The five options for the naming of the bridge

The political parties on Dublin City Council

The key finding

The voting

The analysis by the *de Borda Institute*

Understanding the results: statistics, psychometrics, social choice and political science

The frequency distribution of rankings

Mean, median and mode

Standard deviation

The cumulative frequency distribution

Matched comparisons

The correlation matrix

Dimensions in space

Single-peaked preferences

The voting space and the political party space

The option which would have reconciled and the criterion which would have made it the winner

What can be claimed for the Borda Count

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## 12 Ireland, Trinity and mathematics ... Hamilton and Einstein

Over the centuries mathematicians in Ireland have been involved in the development of major fields of mathematics the mathematics of space and time; the mathematics of logical reasoning; and the mathematics of statistical reasoning. An account of this is given in a recent book by David Attis and it formed the background for my talk at the annual conference of the Conflict Research Society at Trinity College Dublin in September 2016.

Here we focus on two contributions by Hamilton. His use of quaternions to model space and his use of a ‘Hamiltonian’ to model spacetime. Einstein’s theory of general relativity was published in 1915 and the following year in 1916 he published his prediction, based on his theory, of gravitational waves – a prediction which was confirmed in 2016.

Commentary 29, 1-11, 13-14:

<https://docs.google.com/viewer?a=v&pid=sites&srcid=ZGVmYXVsdGRvbWFpbmxb3Jkb25idXJ0bWF0aHNvY3NjaXxneDpkYmUzN2IzOWM3Y2UyMDE>