

The Royal Society of Edinburgh

Edinburgh International Festival

The Enlightenment – An 18th Century Revolution of Thought

15 August 2009–3 September 2009

In partnership with the Edinburgh International Festival, *Nature* and the Wellcome Trust, the RSE presented a series of twelve discussions and talks exploring various aspects of the Enlightenment, as part of the Edinburgh International Festival in 2009. Forty-four eminent experts took part in the series, either speaking or chairing the events; all twelve events were well attended by lively and participative audiences.

The twelve topics covered were:

Visual Art and the Enlightenment

Scotland Exports the Enlightenment

Islam and the Enlightenment

The Ages of Optimism and Pessimism: Utopian and Dystopian Ideas

Science and Tolerance

Music and the Enlightenment: Classical and Vernacular Traditions

On the Dark Side: Witchcraft and the Theatre

Science and the Enlightenment

The Face of the Enlightenment

Moral Universals and Moral Progress: the New Science of Good and Evil

The Enlightenment and the Academies

Political Economy: Adam Smith and Others

The following are summary reports of each of the events. The first four reports were prepared by a young person who worked with the RSE during the summer on a work experience project. Eade Hemingway is a pupil at Hills Road Sixth Form College in Cambridge and obtained 10 grade As at GCSE level before coming to Edinburgh in August 2009. Whilst here, not only did she celebrate her 17th birthday but she also received the results of her AS levels in Maths, Economics, Philosophy and Art, for which she was awarded A, A, B and A respectively. She is now studying for her A levels, also in Maths, Economics, Philosophy and Art. When writing to offer her services to the Society she stated "*I would like to offer my insights – as a young person, pre-university but post-compulsory education For example, I note that there are a number of talks and debates in August; maybe I could attend some of these and offer some feedback from a young person's perspective*".

Eade attended the first four of the Festival events and prepared the summary reports, which were edited by an experienced freelance report writer, Peter Barr, whom the RSE employs on a regular basis. Peter also prepared the reports on the remaining eight events.

Introduced by Lord Wilson of Tillyorn KT GCMG, President of the Royal Society of Edinburgh, His Grace The 10th Duke of Buccleuch and Queensberry spoke at the first event and made an introduction to the series. A summary of his introduction is also available.

**Opinions expressed here do not necessarily represent the views of the RSE, nor of its Fellows
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The Enlightenment – An 18th Century Revolution of Thought

Introduction to the series by The Duke of Buccleuch and Queensberry FRSE

Saturday 15 August 2009

The good, the great and the noble

The Duke of Buccleuch reflects on the Enlightenment and the role of his distinguished forebear – the third Duke of Buccleuch and the first President of the RSE...

It was highly appropriate that the 10th Duke of Buccleuch introduced the first of *The Enlightenment* discussions, since Henry Scott, the 3rd Duke of Buccleuch, was the first President of the Royal Society of Edinburgh – not just a child of the Enlightenment but also a sponsor of the series of talks, in partnership with the Edinburgh International Festival, *Nature* magazine and the Wellcome Trust.

It was also appropriate that the Duke focused on a portrait of his forebear which hangs in the RSE at 22 George Street, since the theme of the first talk in the series was “*Visual Art and the Enlightenment.*”

The current Duke’s ancestor held his position from 1783 until his death in 1812, despite the fact he was not a scientist, nor even “a practitioner of the arts or literature.” But his appointment “tells us something of the spirit of the civic humanism abroad at the time,” said the Duke, “and the wish to make the RSE a forum for the nation”.

The Duke also suggested that the conversations taking place in 2009 reflected many aspects of that earlier era of which we should not lose, including the image of the “intellectually good and great rubbing shoulders with the financially and socially good and great, and the very best minds of the professional elites mingling with, enriching and being enriched by the amateur thinkers.” As well as being open to newcomers, added the Duke, the good and great did not converse “in the rigid silos of arts and sciences, self-absorbed and self-referential,” but in open debate, without boundaries – “debate that was, if not revolutionary, at least unorthodox and maybe a little radical.”

The 3rd Duke also had another interesting connection with one of the leading figures of the Enlightenment. In 1763, the young Henry Scott went on the Grand Tour to Europe, accompanied by Adam Smith, who wrote to David Hume of his companion: “I flatter myself, that I shall spend the rest of the time we are to live together not only in peace and contentment but in gaiety and amusement.” According to the current Duke, their friendship endured for the rest of their lives, and Smith would sometimes spend weeks with the family at Dalkeith Palace, engaging in “serious pragmatic discussion across a huge spectrum of subjects.”

Henry Scott, his son and his grandson also enjoyed a close relationship with Walter Scott (who also became President of the RSE), receiving “torrents of letters on every subject under the sun – from sawmills to schoolmasters to monumental stones.”

The Duke then talked about “one of the most remote and godforsaken corners of the Duke’s eventual inheritance,” the mining village of Wanlockhead, high in the Lowther hills, where the public subscription lending library was founded in 1756 – only the second in Scotland. “The library is still there today,” said the Duke, “and if you browse the shelves and early catalogues, it is humbling to take in the diet of philosophy, theology, Greek and Latin that was read by flickering candle in the hovels that were homes.”

The founders of this remarkable institution had a sense of duty and were generous in their support of the library, “whose inspiration and rationale was so deeply embedded in Scottish cultural and intellectual values” – the same values that helped send Robert Burns and Thomas Carlyle on the road to Edinburgh.

As the Duke travelled the same road that morning, grumbling about the rain, he was struck by how spoilt we are now and how easy it is for people today to enjoy “all the ingredients of wonderful civilised conversation, stimulated by a thoughtful and eclectic cast of speakers,” like those on the panel for the opening talk.

Like his forebear, he added, he also felt “a sense of pleasure and of duty” to be present at such an occasion, and hoped that others felt the same – suggesting “that with the material rewards of our century there go responsibilities for engagement and participation in the conversations that enrich civic society.”

Having earlier referred to the “rather nondescript portrait” of the 3rd Duke of Buccleuch which hangs in the RSE, the Duke then revealed how Walter Scott had it “cobbled together to fit a gap of the RSE’s own making.” According to a “perhaps apocryphal family story,” the RSE had first been offered Thomas Gainsborough’s portrait of Henry “in relaxed woodland setting, with his arms around a most huggable Dandie Dinmont dog,” but this was rejected by “the starched shirts then in charge as lacking gravitas” for such a great institution. “Their loss, our gain,” said the Duke. “It hangs today at Bowhill.”

Perhaps the moral of the tale, the Duke concluded, is “not to be too serious or portentous,” and to remember those common-sense words of Adam Smith about spending time “in gaiety and amusement.”

Peter Barr

The Royal Society of Edinburgh

Edinburgh International Festival

The Enlightenment – An 18th Century Revolution of Thought

Report by Eade Hemingway and Peter Barr

Saturday 15 August 2009

1. Visual Art and the Enlightenment

Chair: **Jonathan Mills** – *Director of the Edinburgh International Festival*

Alexander Broadie FRSE – *Professor of Logic and Rhetoric, University of Glasgow*

Sir Timothy Clifford FRSE – *former Director-General, National Galleries of Scotland*

Juliana Engberg – *Curator of The Enlightenment exhibition*

Duncan Macmillan FRSE – *Art critic, The Scotsman; RSE Curator*

Introductions:

Lord Wilson of Tillyorn KT GCMG – *President of the Royal Society of Edinburgh*

The Duke of Buccleuch FRSE (a summary of the Duke's introduction follows this report).

Seeing is not always believing

In the opening event of *The Enlightenment* series, the four speakers highlighted some of the diverse opinions about what *really* happened in 18th Century Scotland – and whether the visual arts matched the achievements in science and philosophy.

Alex Broadie discussed the relationship between artists and philosophers, the influence of philosophy on art, what artists think and how their perceptions are different from most other people.

Duncan Macmillan talked about the birth of “modernism” during the Enlightenment, when artists (and other people) started to think for themselves. He also described art's connection to other fields and the development of painting from the 18th Century until the present day.

Sir Timothy Clifford took a more critical view of the visual arts in Scotland in the 18th Century, pointing out the areas avoided – such as sculpture – but also praising the world-class achievements of Scottish architects during the same period.

Juliana Engberg talked about the Enlightenment in a more general way, discussing its influence on the development of knowledge, not just in Scotland but around the world – with an emphasis on the “New World” of Australia.

Broadie started by saying that painting is “impoverished” without philosophy, and how we appreciate art more if we understand the philosophy behind it. After a brief introduction to the work of the 18th-Century philosopher Thomas Reid, the founder of the Scottish School of Common Sense, Broadie said that one of the great projects of the Scottish Enlightenment was the “science of man” – and the idea that to investigate human nature, we should use the same methods we use to investigate the world as a whole.

“Painters have special ways of looking at the world,” he said. They paint what they see, he continued, but the question is: “What do they see?”

Broadie then explained that adults may see a table, but infants see colours and shapes. Seeing is an “idea,” said Broadie, and it is only after many years of learning that we manage to interpret colours and shapes as particular objects. Similarly, painters have to put down the “original visual appearance” and let the spectators interpret the blotches themselves. An artist paints with “ignorance” and spectators have to unlearn and “regress” to see the visual image as a child would

and become “adult infants.” And this is one reason why philosophers are so interested in artists, said Broadie, because they are concerned with observation and reason.

Macmillan started by pointing out that the “modernism” of the 20th and 21st Centuries was to a great extent formed during the Enlightenment – which in turn had its roots in the Reformation, when people started to question authority and use reason in pursuit of the truth. Perception was also at the heart of the Enlightenment, said Macmillan, so painters were also of central importance.

He then said that science and art share a common pursuit. They ask the same question: “How can we describe the world if we are part of it?” Or, as David Hume said: “It’s absurd to conclude we could ever distinguish between ourselves and external objects.” Enlightenment wasn’t just about understanding reason – it was about understanding the limits of reason and what lies beyond. So, while scientists had to ignore the problem outlined by Hume, assuming we *could* be objective, artists could acknowledge the problem and make attempts to understand the world despite it.

Thomas Reid developed the idea that our thoughts are intuitive not intellectual, that feeling not reason is the key to morality. Just as the information we receive on our retina must be read like a language, so painters “record the sign, not what it signifies” – which may produce a more accurate picture of the world. Reid’s ideas also influenced artists like Monet, said Macmillan, and the Impressionists.

Finally, Macmillan talked about Marcel Duchamp, one of the “heroes” of contemporary art. According to Macmillan, Duchamp cut out the “messy creativity” and said that art is simply an act of subjective will. This rejects the whole Enlightenment concept, making every artist a “statement of identity” and killing the notion of a common pursuit. Macmillan then suggested we have already turned our backs on what really mattered in Enlightenment thought, so perhaps we are worthy heirs to the work of artists like Duchamp...

“So far,” said **Clifford**, “we’ve been talking about philosophers and the Enlightenment and portraiture, but it’s broader than that.” Rather than praise the accomplishments of the Scottish Enlightenment, he focused on the areas avoided and the lack of achievement. He also pointed out that the Scottish Enlightenment wasn’t a unique phenomenon – it had been around since the 17th Century. He also thought the ideas of the Enlightenment “didn’t get through” to the visual arts in Scotland.

On the other hand, Clifford believed that Scotland in the 18th Century produced the greatest ever architects in the UK – “by miles.” Architecture was fundamental to the Scottish Enlightenment, Clifford continued, despite the fact that most of its greatest exponents did not work primarily in Scotland.

Clifford then described what he felt was lacking in Scotland in the second half of the 18th Century – most notably, sculpture. Whilst the Grand Tourists travelled to Rome to admire its classical sculpture, they ignored their home-grown sculptors. Scotland at that time was also importing art from countries such as Italy, France, Holland and Belgium, but “that did not rub off on Scottish painters”, he added, although artists like Ramsay were more influenced by French painting than anything Scottish.

There was “precious little painting” of merit in Scotland during the Enlightenment, said Clifford, at a time when science and philosophy were booming. Clifford then summed up by saying that there were many contradictions in Scottish art at the time – between what people were thinking and talking about and what they were creating. So why, he asked, when there was such a turmoil of ideas, did Scotland produce so little great painting? Most of its achievements were “confined to portraiture,” he said.

Engberg said the “New World” was created by the Enlightenment – for example, her home town of Melbourne has marvellous architectural features such as Corinthian columns, as well as democracy and a health system for all. And it all started here...

She also brought greetings from the Kulin nation – an alliance of five indigenous peoples who lived in Australia 35,000 years before the Europeans arrived. And Engberg said this helps her realise that the Enlightenment “is not a bell jar” but a continuum – we are the product of an ongoing process not a single event in the past.

Engberg also commented that fundamentalism and superstition seem to be on the rise, along with religions such as Buddhism. “Self-Enlightenment” is becoming more important than Enlightenment, she added.

Communication is a key aspect of the Enlightenment, Engberg also suggested, mentioning the letters that passed between nations and philosophers, connecting the most brilliant minds so they could share their ideas and build on them.

She summarised the Enlightenment as a great “hybridisation” of thought and style. It gave us tools to build more – the foundations of progress.

Discussion

Mills kicked off the discussion by asking Broadie what he thought of Clifford’s opinion regarding the lack of achievement in Scottish art at the time of the Enlightenment. Broadie agreed that Scotland was weak in sculpture but said that there were also many notable achievements, including “at least two geniuses in portraiture” – Ramsay and Raeburn. Clifford said that Ramsay was a “supreme thinker” and man of letters who gave up portraiture in 1766. He then emphatically denied that there were any “distinguished works of high art” in Scotland in the second half of the 18th Century outside of Ramsay and Raeburn, pointing out that Wilkie was really a 19th-Century artist.

Macmillan defended 18th-Century Scottish portraiture, saying it went hand-in-hand with the central business of the time – the study of human nature. For example, there was a close relationship between scientists – such as the geologist James Hutton – and Scottish artists. Macmillan also questioned Clifford’s view about Scotland turning to Europe for inspiration, saying it was actually the other way round – for example, Adam Smith taking the Enlightenment to Rome.

Engberg said that portraiture was not just about anatomy but linked to the rise of the new moneyed classes and individuality.

Broadie then discussed the Scottish painter Gavin Hamilton, and said there was not much religious painting at that time – “no angels.”

Engberg said that the post-modern period had more in common with the Enlightenment because it was not so aloof and more willing to involve the spectator. She saw a gulf between high art and “cross-disciplinary” projects.

Referring to the current exhibitions curated by Engberg, one person said a cartoon of Darwin was simply not art. Mills disagreed “profoundly,” while Engberg said again we should not treat different ages like separate bubbles, and that modern art is a product of the Enlightenment.

One member of the audience asked about specialisation and how it has made many subjects “exclusive” – making it difficult for people to contribute outside their particular field. Macmillan said: “The motor of the Enlightenment was conversation,” adding that this is no longer the case as specialisation and – even worse – professionalisation throws up barriers in institutions.

Clifford then said that there was a lack of interdisciplinary activity during the Scottish Enlightenment, including not much scientific drawing (e.g. botanical drawing). A comment from the audience was that people in the 18th Century had several professions – Hume, for example, was also an historian. Macmillan echoed this by pointing out that the Scottish painter Alexander Naismith had invented the shaft-driven propeller.

Clifford then returned to the philosophy of painting, discussing the idealist (Platonist) approach versus naturalism. He described Hamilton as an “idealist,” while Broadie said “there can’t be a science of angels, because they’re not around to be observed.” Finally, Macmillan quoted Hamilton: “The agreeable cannot be a substitute for the exact,” claiming Hamilton was central to the development of European painting.

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Report by Eade Hemingway and Peter Barr

Sunday 16 August 2009

2. Scotland Exports the Enlightenment

Chair: Jim Murphy MP – Secretary of State for Scotland

Arthur L Herman – *author of How the Scots Invented the Modern World*

Ong Keng Sen – *Artistic Director, TheatreWorks*

Tom Devine OBE FRSE – *Professor of Scottish History, University of Edinburgh*

The conversation continues...

Arthur Herman talked about what the US imported from Scotland during the Enlightenment, including the “common sense” ideas of Thomas Reid and their influence on the “creator of modern American culture,” John Witherspoon.

Ong Keng Sen discussed the links between his country (Singapore) and Scotland. And instead of talking about Scotland “exporting” the Enlightenment, he was more interested in the contributions of different countries, helping each other to achieve mutual greatness.

Tom Devine said that without Europe there would have been no Scottish Enlightenment. He also traced the influence of Scotland on America, focusing on church and universities, the middle class, the Clearances, the “Atlantic Superhighway” – and the key role of “a Scotsman on the make.”

Herman began by discussing Scotland’s “gifts” to America, focusing on Scottish philosophers, including the common sense theories of Thomas Reid and his idea that our interaction with the world is between a thinking subject and objective reality – in other words, we are not passive recipients of sense perceptions, as John Locke proposed.

One of the main questions posed by Locke and others was: “How do we know what, if anything, is real?” Reid thought we can tell what is real by using our judgement and that it is the power of those judgements that makes us fully human. Our judgements are also based on certain principles, which Reid called “the principles of common sense.” Every rational human being has these basic principles, so in theory we all know what is real and what is not, what is right and what is wrong, etc. We are also “built equipped to understand the world.”

Herman then talked about the “creator of modern American culture” – John Witherspoon, the President of Princeton University for 25 years and tutor to a future US President as well as many other influential American figures. Witherspoon’s teachings were based upon Reid’s common sense ideas, although Witherspoon also felt he was due some of the credit for developing the theories, later taken on by another Scottish philosopher, William Hamilton.

Witherspoon also had a liberal attitude to his acceptance of students, taking the best candidates from all towns, including Native Americans and black students.

Herman concluded by mapping the line from Reid through Witherspoon to Hamilton, and on to pragmatism. In Herman’s view, the key idea is that there is a real world out there and our job is to go out and find it. And if Witherspoon and colleagues had developed a slogan, it would probably be Nike’s “Just do it!”

Ong explained that he had learned about the Scottish Enlightenment during a three-month residency in Edinburgh. At that time, he also became more aware of the Greek and Roman influence that still leaves its mark on the city, which got him asking: “What is Scotland today?” and “What was Scotland then?”

Ong described how, at the time of the Enlightenment, many different elements all came together at the same time, in the same place – something still reflected in Scotland today. He also said that he was less interested in Scotland “exporting the Enlightenment” and thought of it more as a migration of ideas – the migration of soul and the migration that comes from “cultural flow.” So instead of give and take between countries, it was more about sharing.

Another issue raised by Ong was Scottish nationalism versus Scottish cosmopolitanism, and his interest in the latter. He also asked: “What is going to be the future Enlightenment?” and “Can there be one?”

Ong also emphasised the different strengths coming together, to create the best possible outcome, including travelling across the world and working with people from other cultures to achieve greatness – for example, Scottish scientists asking Chinese artists to produce drawings of birds and plants, etc. – and benefit equally from this collaboration.

Singapore’s connections with Scotland were something Ong had also learned about while living here, finding out for the first time how much of his own world had been influenced by Scotland.

Ong concluded by saying that Enlightenment is about transformation of sources and a growing sense of belonging to the world.

Devine said that although the Scottish Enlightenment was no doubt a great thing, there is not enough criticism of its achievements, so it’s important not to fall into what he described as “the trap of ethnic conceit.” We should put our own experience in context, he said, including the achievements of the countries around us – realising we were only “one part in a grand European symphony of ideas.” For example, if we look at Thomas Jefferson’s library, we may “arrogantly” note that a fifth of his books were by Scottish Enlightenment authors, and ignore the four-fifths written by other European authors. Without Europe, he said, there would be no Scottish Enlightenment, so why was there such a strong “Scottish stamp” on the development of North America in the late 18th century?

One reason, said Devine, was the “Atlantic Superhighway of the 18th century,” not only helping the export of goods and services but also ideas and people, the commercial links underpinning intellectual connections.

Another reason for so much credit going to Scotland was the impact of university-trained Scots on North America as a whole, especially in the early days of colonisation. For example, between 1680 and 1780, over 800 university-educated Europeans were operating in the 13 colonies which eventually became the USA, and two-thirds of them had been educated in Scotland. Half of all 19th-Century Canadian universities had direct Scottish origins or Scottish influence on their development.

The simple explanation is that Scotland had a lot of universities producing lots of graduates, who had to look abroad to find work. Another explanation is that nearly everyone in Scotland was Christian, including many sons of ministers, something which went down very well in America.

Devine then explained two aspects of Scottish migration that make it very different to other European countries. First, there was the export of an educated, middle class which was still a minority, but a higher proportion of the total population than in any other country. And secondly, the Highland Clearances – the major reason for Scots leaving Scotland, accounting for more than half of the total. Migration also carried on over three centuries, motivated by the search for opportunity. A Scotsman on the make, Devine concluded, was why the Scots were so influential in the 18th-Century transatlantic world, and later on in Australasia and Asia.

Discussion

One questioner was concerned about the lack of women involved in the Enlightenment. Devine said all the figures of importance were males, partly because the universities played such a critical role in the 18th century, when women were not yet admitted.

Another person wondered, if we had a second Enlightenment, would we want less interference from politicians? Devine said that during the 18th Century, Scotland had “exhausted its political demons.” There was broad acceptance of the status quo, the parliament was gone and the absence of a political opposition meant that intellectuals did not need to take sides – if people disagreed with each other, they didn’t need to take it personally. That is why, said Devine, he never reveals his political inclinations. Free debate shouldn’t result in a fight...

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Sunday 16 August 2009

3. Islam and the Enlightenment

Chair: Dr Philip Campbell – *Editor-In-Chief of Nature magazine*

Speaker: Dr Ibrahim Kalin – *Georgetown University (Washington DC), and SETA Foundation (Ankara, Turkey)*

When Europe met Islam...

Dr Kalin started by asking what the Enlightenment was and quoting Immanuel Kant: "We do not live in an Enlightened Age," said Kant, but in an "Age of Enlightenment." Dr Kalin also said there were still a few "dark spots," and quoted another German philosopher, Jurgen Habermas, who described the Enlightenment as an "unfinished project," adding: "The history of reason is not yet complete; the light of reason was never fully released during the Enlightenment."

After 9/11, Dr Kalin continued, an American historian wondered if there was any point in writing about the Enlightenment at a time when its ideas and values seemed to have ended in such brutal fashion. Kalin then explained that he didn't mean to say Islamic culture was "unenlightened" but simply that Islam had never experienced what the West did in the 18th Century, questioning everything we thought we knew. Islam didn't go through the same stages that created what we call "the modern world" and therefore did not feel so connected with it – an issue which Muslims have debated since the 19th Century. The Islamic concept of placing everything in a larger context such as transcendence has little appeal in the modern world, said Dr Kalin, and Islamic religion and Islamic traditions would be compromised if that were changed.

How did Muslims create one of the most advanced civilisations and maintain it for centuries until relatively recently (the 19th Century), and why did it now seem so "backward" compared to the rest of the world? How can Muslims, Dr Kalin asked, now "catch up" with the modern world – and do so while maintaining their core values?

Since the prophet Muhammad was first called an "imposter" in the 8th Century – a popular opinion which continued throughout the Middle Ages – no Western intellectual could remain indifferent to Islam, said Dr Kalin. During the Enlightenment some philosophers were interested in Islam because they hoped it would provide an alternative religious system to compete with Christianity. They were seeking a religion without institutions – a "natural" religion that could be understood rationally – and found part of the answer in Islam. Because Islam was a "natural theology" which appealed to human reason more than superstition and myth, it spread further than Christianity. Scholars and historians of the period also praised Muhammad for his worldly achievements, and later on, a certain very famous French general, Napoleon, studied the Qur'an...

However, said Dr Kalin, Christian Europe also had a love-hate relationship with Islam – it was both admired and despised. In the 17th and 18th Centuries, there were efforts to "rediscover" Islam, and also a mission to correct the Christian world's "fanatical and distorted" views of Islam.

The Crusaders of the 11th and 12th Centuries were the first people to come into contact with Muslims and envied the advancement of Muslim society and its material achievements. The unexpected consequence of the Crusades was therefore a change in opinion, as well as the

introduction of new things like chess, ink and perfume, and Muslims were no longer thought of as “monsters.”

When the first modern encyclopaedia was written in the late 17th Century (the *Historical and Critical Dictionary* by Pierre Bayle) there were 25 pages on the Prophet of Islam, describing Muhammad as “an imposter and a false teacher.” Although this wasn’t meant to be a positive description, it encouraged people to find out the truth for themselves, and this had positive repercussions, said Dr Kalin, including travel to the Muslim world to witness the religious tolerance of Islam, as opposed to the “brutality” of many Christians when they came across different beliefs. One French historian wrote at the time: “The teaching of Islam conforms to the light of reason...and is neither gross nor barbaric.”

Jews, Christians and Muslims all believe in a divine creator, Dr Kalin continued, so how does reason fit with this? Enlightenment philosophers decided that *reason* was the source of truth, and this led to the start of “ideological rationalism.”

The philosophy that grew out of the Enlightenment contradicted both Christianity and Islam, and one effect of this was less hostility towards Islam. Dr Kalin also talked about the importance of reason in Islam – something which may appear puzzling because reason is concerned with truth and logic, while religion is concerned with beliefs. According to Dr Kalin, fideism – the idea that you don’t need proof to justify beliefs – was never very popular with Islam. Muslims believe that reason is used to distinguish between the self and the non-self, and even to understand “the world beyond reason” – which is why it is still so important to Muslims.

What does all this mean for us today? Does Islam need an Enlightenment? If so, what form will it take? And who will initiate it? These are just some of the questions asked by those who want the Muslim world to make peace with the “modern” world, said Dr Kalin.

Islam’s encounter with modernity goes back to the 18th Century, and since then Muslims have seen (but perhaps not acknowledged) that modernism isn’t quite so perfect. One of the consequences of the new thinking in Europe was colonialism, whilst improved technology meant better weapons, and rationalism could sometimes lead to racism.

The encounter with the modern world produced three major responses in Islam:

1. Islamic modernism – wanting Islam to “catch up” with the West
2. Fundamentalism – the opposite of modernism
3. People who thought Islam had to adjust but shouldn’t give up its traditions

There were certain traditions, Dr Kalin explained, that contributed to the Muslim world’s previous successes, producing “philosophical reflection, logical rigour and spiritual depth.” And he said that what the Muslim world needed today was a revival of those traditions.

Dr Kalin concluded that in an increasingly globalised world, the task of creating a civilised world cannot be the sole responsibility of any one nation or culture. We must rise to the challenge together, he said – which is why the Qur’an calls on all of humankind to “fight for the common good.”

Q&A

One member of the audience said that Muslim countries didn’t play a large part in shaping the UN Declaration of Human Rights and that we need common values to achieve world peace. Dr Kalin said it was a shame the Muslim countries weren’t directly involved, and wondered why the Muslim world does not have a Ghandi or a Nelson Mandela – adding that we do not always listen to such figures.

Dr Kalin also said the values of the Muslim world must be respected even though they are different. There are often double standards, he added, regarding human rights, with more powerful countries making lots of demands and often doing something very different themselves.

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4. The Ages of Optimism and Pessimism: Utopian and Dystopian Ideas

Chair: Sally Hobson – Festival's Programme Development Manager

Tom Wright – writer of the Malthouse Melbourne production, *Optimism*

Knud Haakonssen FRSE – Professor of Intellectual History, University of Sussex

Maggie Gee – novelist

Michael Kantor – Artistic Director, Malthouse Melbourne

Enlightenment vs Endarkenment

Tom Wright talked about the impact of the Enlightenment on Australia, exploring both the positive and negative aspects – including colonisation.

Knud Haakonssen explained how Australia at one point was thought of as Utopia, and discussed the connections between optimism and Utopia.

Maggie Gee described the history of dystopias and why so many novelists write about them, tracing the plots of three of her own books.

Michael Kantor looked at the positive side of human nature as explored in Voltaire's *Candide* – the inspiration behind the current production of *Optimism*.

Wright began by describing how he had grown up in Melbourne, at a time when dystopian works of art such as William Golding's novel *Lord of the Flies* and Stanley Kubrick's film *Clockwork Orange* (adapted from the novel by Anthony Burgess) encouraged him to "mistrust human nature."

He then described the paradox of the Enlightenment – was it like switching on a light bulb or "letting loose a plague upon the world?" For Wright, this is reflected very clearly in the founding of modern Australia, and he sees the "colonisation of the dark continent" as a product of the Enlightenment. Whilst Europeans looked out of their windows and saw a benign landscape, "the eternal verities were turned upside down" when they arrived in Australia, where nature was hostile and dark. In other words, Enlightenment means one thing in one place and something quite different when it is transplanted to the opposite side of the world.

He developed this "paradoxical" theme by describing the juxtaposition of the graveyard where David Hume and Adam Smith were buried, next door to the Political Martyrs Monument on Calton Hill – in honour of the five Scots transported to Australia in 1794 for campaigning for parliamentary reform. This was moving for anyone from Australia to see, Wright explained, because these men were more than petty criminals – they were a crucial part of what made Australia the society it is today. Wright also described how the five men were sent with a note to the governor saying that despite their "criminal behaviour" they were still men and should be well treated, and as a result they were placed on the "respectable" side of Sydney. The city itself encapsulated the idea of "light versus dark," with the officers and gentlemen on one side

of the harbour and “uneducated convicts” on the other – the template for modern Australia, with intellectuals versus the survival instinct (which makes ‘Aussies’ so good at sport!).

Wright wrapped up his talk by discussing “the problematic attitudes of encouraging Enlightenment,” and how this can lead to the feeling we have to control other people and tell them they’re ‘wrong’ – for example, saying Muslim women need to undergo enlightenment. “There is always a price to be paid,” he concluded.

Haakonssen echoed these ideas by describing how many people used to think that Utopia really existed – and imagined they would find it ‘Down Under’. However, when they reached the *terra incognita* of Australia, the fantasy soon changed into reality (*cognita*).

There is a fundamental divide between optimism and Utopia. Optimism – like pessimism – is essentially about time: our self-consciousness about the future. Utopia is stationary, unchanging, outside of time.

To bring the two together requires draconian measures – some kind of speculative theory, showing Utopia as the goal of a process of which we are part. The idea of laws of history is one example, the idea of providence another. Contrary to popular notions, much of the Enlightenment accepted the latter, and further, that humanity could assist providence in all manner of ways – and that was Enlightenment. Voltaire, Hume and Adam Smith rejected such ideas – but that didn’t make them pessimists.

As an author of three dystopian novels, **Gee** said this was one of her areas of expertise. “No-one writes utopian novels any more,” she explained.

She said the urge to write about dystopias often originated in rebellious childhood, when young people start to question authority and also feel that ‘no-one understands’ them. Gee also said that dystopian writing is a way of expressing ideas without the irrelevant details you have to include in ‘realistic’ novels. It is easier to express ideas set in a virtual world.

Every novelist is trying to highlight the fact that their experience is interesting and that they have something to say that they think is worth hearing, said Gee. And even though fiction means lies, she thinks novelists are ultimately interested in truth, but don’t always believe what they’re told.

Gee then gave a brief description of each of her dystopian novels. The first was set in the 1980s when all that seemed to matter to many people was “sex and shopping.” A couple go off travelling, leaving their kids behind, but their lives fall apart and they end up unsatisfied and lonely. The second is about climate change going into reverse, to make the point that human beings always look in the wrong direction, using environmental problems to exaggerate what she wanted to say about society. The third was written before the Iraq war, when many people thought it would not happen. And soon after the book was released, war broke out.

Finally, she said that dystopian novels are proof that some of the best things of the Enlightenment are still here – including the ability to be sceptical and realistic.

Kantor talked about his fascination with optimism, fuelled by his involvement in an adaptation of Voltaire’s novella *Candide* appropriately called *Optimism*. He then wondered how we can remain positive in face of so much bad news and things to be negative about, somehow managing to believe not only that bad things won’t happen to us but also that good things may happen.

The play, he said, unfortunately doesn’t tell us how to remain optimistic. It is in fact a satire. Voltaire is pointing out how stupid it is to remain optimistic, via his depiction of the character Pangloss, who witnesses extremely negative events, but somehow manages not to become pessimistic, the idea being that we have to be optimistic or “humanity goes to muck.”

Originally, said Kantor, the Malthouse team thought they would have to change a lot to fit Voltaire's ideas in with contemporary society, but in fact they still work very well (the stage play is set on an airplane). This shows that despite the many changes since Voltaire's time, the complexity of the human mind is much the same today. Voltaire understood that human beings need positive thought, and also need to return to the practical world, an idea expressed in the very last line of the play, when Pangloss says how great the world is and Candide replies: "That's all well and good, but now we must tend to our garden."

"What does it mean?" Kantor asked. For him, it is the radical idea that we need to return to more practical things. Faced with wars and natural disasters, "we need to tread lightly on the soil," he said.

Kantor said he hated to be naïve, then concluded by saying: "It fills me with hope that there is something we can do," despite all the problems around us.

Discussion

Hobson kicked off the discussion by asking the panellists if they thought dystopian and utopian worlds were a way of not dealing with reality. Gee said it was exactly the opposite, and Wright said: "Utopias of the mind are harmless – it is only when we try to create them that we release the worst savagery. The path to the gate of hell (for example, the holocaust) is the price we pay for imagining a better class of nightmare." In response, Gee added that utopian politicians were also very dangerous.

Wright then talked about how the optimism in Australia ironically comes from people's fears about climate change, particularly when they experience bush fires or droughts. "The land in Australia does not sustain Enlightenment," he added, "and the notion of improvement."

Returning to his earlier remarks about the last lines of *Candide*, Kantor said there was a big difference between "tending" and "cultivating" the garden, since tending meant looking after things and letting them grow naturally, rather than changing the way that they grow.

The first question from the audience was whether we could have material progress without moral progress. Kantor agreed this was a problem, and used *Optimism* as an example, with the plane as a symbol of progress – so that "the very thing that lets us travel also chokes us" with pollution. Perhaps we should redefine progress, he suggested.

Gee said it is essential to "decouple notions of progress and growth from our notions of happiness," and said that to be happy does not necessarily mean being richer or having more power. We are a short-lived and a short-sighted species, and we should "try to be like other non-human animals and stop interfering with the environment." We should also "aim to be happy with less," she added, "and take no heed of politicians. All civilisations collapse," she declared. "It's a law of nature." Wright added: "There is no end to the rapaciousness of man."

Hobson asked if we should take advice from *Candide* and be content with what we have, despite all our problems? Wright said it was easy to say that today, but how do we tell Third World countries to aspire to less and hold back their development?

Haakonssen said that we need to end the either/or distinction between optimism and pessimism. "It's irrelevant," he added. "It's not about progress versus no progress. We should be suspicious of utopias and dystopias except as products of the imagination."

"What is the Enlightenment against today?" Hobson enquired "What is the darkness against which we need to shine a light? Colonisation existed long before the age of the Enlightenment – for example, the Roman Empire". In response, Gee said fundamentalism was the darkness today, together with the "fictions" of religion. Wright said that the quest for liberty was a good thing, but exploitation often goes with it. Haakonssen suggested that Enlightenment is not a formula, and Gee agreed that it was not as simple as "a light against the dark."

A member of the audience suggested the Enlightenment was realistic, not optimistic or pessimistic, “recognising the world as it is, not as we would wish it to be.” Haakonssen agreed, but pointed out that there was more to the Enlightenment than Hume, Smith and Voltaire. Gee said she wants to be “a child of the Enlightenment,” stressing the importance of the conflict between ‘doing what you are told’ versus ‘don’t believe all you are told’.”

Is the younger generation pessimistic and passive? Gee said she thought that the answer was “mixed,” adding it is up to individuals to decide to be as active as they wish, and not let anyone tell them that their generation is one thing or another. Hobson said children are judged much too early and told who they are before they can discover the truth for themselves. Kantor said we should avoid generalisation, but believed the younger generation today are more active than his generation, while Haakonssen pointed out that unusually many young people voted in last year’s US election.

How do we protect the ideals of the Enlightenment and prevent their perversion, as in the Russian and French Revolutions? The panel agreed that the ideals should not be protected but tested – all ideas live or die on their own merits. Gee also suggested that the main characteristic of the post-Enlightenment age was scepticism, and a member of the audience echoed this notion, suggesting we should question things and not be prescriptive about how we live.

People take a pride in the Enlightenment but what about the bad bits? Haakonssen suggested that although strong in defence of property rights, the Scottish Enlightenment was by no means a libertarian movement.

The Royal Society of Edinburgh

Edinburgh International Festival

The Enlightenment – An 18th Century Revolution of Thought

Report by Peter Barr

Friday 21 August 2009

5. Science and Tolerance

Chair: Lord Wilson of Tillyorn – President of the RSE

Baroness Onora O'Neill of Bengarve FBA – *philosopher and former President of the British Academy*

John V Pickstone – *Wellcome Research Professor of History of the Medicine, University of Manchester*

Lord Rees of Ludlow – *President of the Royal Society, Astronomer Royal, Master of Trinity College, Cambridge*

Science vs pseudo-science

John Pickstone set the historical context by saying that tolerance was 'invented' towards the end of the 17th century. The persecution of heresy (which had been seen as endangering the spiritual health of the people) diminished, partly through war-weariness and political expediency, and partly through the promotion of individual enquiry which tested theories by arguments or experience. These attitudes remain associated with the 'scientific revolution' of the 17th Century, but were also associated with developments in religious and political thought. For John Milton, one could be a "heretic in the truth" if one believed for the wrong reasons. Tolerance created the space for enquiry.

Pickstone argued that careful scepticism still remained appropriate across all fields of enquiry – from those known since the nineteenth century as science, through the wider questions which once constituted natural philosophy, and on to politics and religion. It was unhelpful to think of matters of science as now secure and as contrasting with 'mere opinion' or fixed faiths. Disciplined scepticism was essential to the technical and social development of the sciences; but we too easily forget that increases in gender, racial and economic equality, for example, grew more from campaigns and debate than from any particular 'faith positions' (or indeed from 'science').

Onora O'Neill pointed out that "we are the generation which has endangered the environment and trashed the economy," yet is also more insistent on human rights and more willing to embrace diversity. She then said toleration was sometimes seen as easy and equated with indifference. Instead of saying "anything goes," we should be more concerned with critical enquiry and focus more on evidence – "disciplined enquiry not a free-for-all." She also suggested that we should not pay equal respect to every position, and should differentiate between arguments which rely on evidence and those which do not.

There has been a move away from older conceptions of freedom of speech, said O'Neill, to thinner conceptions of freedom of expression. Good communication or enquiry needs structure, clarity and discipline and self expression can neglect all of these. "Mere freedom of expression comes at a cost," she continued, "and distracts from what really matters." There is also the

problem of libel and hate speech, she added, which tempts us to introduce laws to control how we talk to each other in public.

Martin Rees explained that in the late 17th and early 18th Century, medicine and astronomy were the only professional branches of science. But even though science today may be broader in scope, he continued, it is not always “optimally deployed for the sake of human welfare” – e.g. many scientists focus on weapons research and curing the diseases of the rich rather than tropical diseases. “Scientists as a tribe are fascinating subjects for anthropology,” Rees then declared.

For scientists, the path to consensus is a winding one, Rees said, referring to the “vendettas” which sometimes exist in subjects like cosmology. When rival theories fight it out, he explained, only one argument wins, and sometimes only one piece of evidence clinches the argument – e.g. theories like the Big Bang or Continental Drift. Very strong support for a particular viewpoint can also be problematic, although, on the other hand, “we love to see a maverick vindicated.” The general public are interested in subjects like cosmology, as well as health and diet, but sometimes the “flaky ideas” are paid more attention than life and death issues, and this may lead to problems with the claims made for alternative medicines or the confusion about MMR. At the same time, he added, “the media should not exaggerate or gloss over the uncertainties.”

Climate change, Rees said, is another problematic area, particularly when it comes to political action. Scientists are not in charge of the world but Rees suggested neither scientists nor politicians should make decisions alone – we all must decide. At the same time, some campaigners can get in the way of rational debate. “The global village has its global idiots,” said Rees, later adding that we also have to rise above the level of the tabloids.

Even when there is consensus, there is always a problem with measuring the scale of threats, particularly when it comes to “low-probability, high-consequence events.” For example, with Variant CJD, a scientist could say there is a one per cent chance of one million deaths, and people may panic. In reality, however, there have only been about 100 deaths. So what do you say and how do you say it?

Complex scientific questions can be social and political minefields, and must be seen in context. The moratorium on gene splicing may not have been a good idea but it made sense at the time, Rees suggested. With synthetic biology, consensus is harder, and commercial pressures make it more intense. Dialogue with politicians has enabled progress when it comes to stem-cell research, he continued; but with GM crops, the views became too polarised right from the start and the whole thing went wrong. “Scientists must engage upstream,” Rees added.

When it comes to “pseudo science” or UFOs, said Rees, it is also difficult to have a sane debate because the different sides don’t use the same methodologies, but unlike Richard Dawkins, Rees does not think astrologers ought to be sued. “The heirs to the Enlightenment should not allow intolerance,” Rees then concluded, “but we must be rational and use evidence.”

Discussion

When **Lord Wilson** asked if tolerance was the key element in the scientific Enlightenment, Pickstone pointed out that David Hume was regarded at the time as “too heretical” by many academics, so everyone was not equally “tolerant.” Politics also had a huge influence, he added, citing the very different attitudes to Enlightenment views before and after the bloodshed of the French Revolution. It was in the early nineteenth century that ‘natural philosophy’ was forced to the margins by a raft of specialist sciences which then became professionalised. But the wider questions about man’s relation to nature did not, and cannot, go away. History of science remains one good way of discussing them – as he had tried to show.

O’Neill suggested that natural scientists tend to be contrasted with so-called “literary intellectuals,” but that in her experience she meets many people from the different ‘tribes’ who can communicate perfectly well with each other. On the other hand, she added, communication is endangered when too few people study maths or foreign languages. Rees said that specialisation or looking at “bite-sized” aspects of problems tend to make people forget the Big Picture.

A member of the audience, citing John Stuart Mill's tolerance of freedom of expression and other people's points of view, suggested that Martin Rees had shown contempt for UFOs, adding: "It is extraordinarily unscientific to say that there is no other intelligent life in the cosmos," and that surely scientists should investigate. "We can be just as dogmatic concerning rules of evidence as we are concerning content," the questioner added. Rees said he was open-minded about UFOs and believed the universe was probably "teeming with life," but that the great challenge was to find it. At the same time, he suggested that it seemed absurd that aliens visited so many "cranks" and spent so much time creating circles in corn fields.

Another member of the audience asked about the problem of debating evolution and intelligent design, and Pickstone said he would prefer to discuss the rival claims as matters of history, showing how and why each position evolved and how they related to contemporaneous developments in the sciences and religions. O'Neill said that, fundamentalism is what taxes toleration, whether religious or secular, since it leads people to show contempt for the other domain.

Asked whether politicians fear the electorate knowing all the facts of climate change because this may mean losing votes, Rees gave the current Prime Minister credit for raising the issue internationally. "We must have a global consensus," he added, "not just a local consensus." Pickstone thought the public debate about climate change was rather good, compared to the debate over such topics as global economics, and O'Neill compared the climate change "deniers" with "denialists" who have an "extraordinary resistance to the evidence concerning HIV AIDS."

The next question posed to O'Neill was a tough one: "When should we *not* tolerate views?" She responded by saying there is no neat line where toleration begins and ends, but she was concerned about the way that many people want to clamp down on dissent, citing the complications (and the tragic deaths) arising from the Danish "anti-Islam" cartoons. "By and large, we need sensible boundaries," she said, and that means care about hate speech. "Any acceptable limits to toleration are likely to bear on *how* we speak, not what we say."

Education was also discussed in some depth, including people's ignorance of maths and students being forced to choose between subjects. "What should an educated 18-year-old *understand*?" asked O'Neill, rather than *know*. Pickstone amended John Milton: "it's not what you know but the way that you know it," saying that knowledge was not about possession but the process of acquiring it. The media then came in for some criticism, particularly in relation to the MMR controversy, but O'Neill expressed some sympathy for the non-experts and praised those who talk with journalists in accessible ways.

Another questioner wondered if the volcanic eruption of 1783 may have indirectly led to the formation of the RSE by "concentrating minds in Edinburgh," while another was concerned that tolerant societies may be regarded as intolerant by those who hate the decadence of the West. O'Neill expressed concerns about political correctness and "self-censorship," while Pickstone was concerned about the view that only faith schools can provide a moral education. A member of the audience also talked about the two principles of tolerance being to "seek first to understand then seek to be understood."

The discussion ended on a light note when Rees returned to the "alien" theme, saying that science is the only global language and that even aliens see the same cosmos that we do – perhaps through the same "total perspective vortex" invented by the writer Douglas Adams, which may also be seen as the logical conclusion of science and tolerance.

The Royal Society of Edinburgh

Edinburgh International Festival

The Enlightenment – An 18th Century Revolution of Thought

Report by Peter Barr

Sunday 23 August 2009

6. *Music and the Enlightenment*

Chair: James Waters – *Director, Festival & Events International*

Sir Roger Norrington – *conductor and academic*

John Purser – *Research Fellow, Sabhal Mor Ostaig, Skye*

Marjorie Rycroft – *Professor of Music, University of Glasgow*

From princely palaces to farmyard...

The Austrian composer Joseph Haydn was the focus of attention for much of the discussion as the three speakers outlined the dramatic shifts in music during the 18th Century – including the ‘internationalisation’ of traditional Scottish airs.

Haydn’s career was a metaphor of how music changed in the course of the century. Of modest birth, he started off as a composer for the court then later on became as famous as a pop star, moving from “servitude” and music as “simply a job” to complete artistic freedom and the joy of creativity. In the process, his music also evolved from private, religious and serious pieces to much more accessible and “recognisable tunes” enjoyed by the general public. During the same period, Haydn also evolved as a man, casting off the uniform of a servant and adopting the Masonic apron which symbolised the universal brotherhood of man. And according to **Sir Roger Norrington**, Haydn was “a weather vane for music in the Enlightenment,” promoting the idea that music should be entertaining and available to everyone in the same way that education should be entertaining.

John Purser then sketched out the Scottish connections, describing the “aristocratic” composers of the early 18th Century, Sir John Clerk (described as lawyer, dilettante and Mason) and the Earl of Kellie (drank too much and died young), who according to Purser was “our own little Haydn.” Purser also talked about the Scots’ love of Italian fiddles and the drive during the 18th Century to integrate traditional Gaelic songs with classical music, “making sonatas out of old Scots tunes.” Purser also amplified the Masonic theme, describing how the Ancient and Accepted Scottish Rite influenced major composers like Haydn and Mozart, and how the Scottish composer James Oswald wrote music of Masonic relevance.

The starting point for **Marjorie Rycroft** was the founding of the Edinburgh Musical Society in 1728 by gentlemen intending to “better themselves” by establishing the city as one of the major venues for classical music on the European circuit, and the export of Scots tunes to Europe. As well as discussing the difference between folk music and high art, Rycroft described the way in which traditional tunes were translated into music which could be performed by “amateurs and young ladies” in middle-class homes, including Alan Ramsay’s *Tea-Table Miscellany* and William Thomson’s *Orpheus Caledonius*, the first published collection of Scots songs and airs (1725), which later inspired Robert Burns. At the end of the 18th Century, George Thomson sent Haydn 30 Scottish airs which the Austrian composer arranged for a fee of two ducats per air, eventually completing more than 200 such arrangements for voice and piano trio, many of which were set to words by Robert Burns. Rycroft also explained that Haydn, who received only the melodies from Thomson, did not set out to match words and music – the music just fitted.

Discussion

In the open discussion which followed, a number of themes were developed, particularly the idea of 'movement' – from one social class to another, from private performances to open-air concerts in public, from the so-called "vernacular" to the classical style, as well as from country to country. As Purser put it, "the musicians *and* the music moved around." John Waters also added that composing became a more "respectable" profession during the 18th Century.

Norrington then described how in Vienna during Haydn's time, the concerts performed for the court were repeated for the general public the following night, free of charge, as long as the audience was properly dressed and behaved well. He also read out an account of a farmer attending a concert in the city, illustrating how much music changed in the Enlightenment, moving on "from princely palaces to farmyard." "Music was available to everyone," said Norrington, "and music spoke to everyone."

One of the audience questions concerned the Scottish writer Robert Fergusson, who wrote a poem called *Elegy on the Death of Scots Music* to express the idea that the traditional songs had been "gentrified and tampered with" by foreign arrangements – or as Purser put it, some Scots did not want the native airs to be "corrupted." Rycroft balanced this by pointing out that one of the most interesting aspects of the foreign arrangements was that the Scots songs were considered to be good enough to be internationalised, and that this was the opposite of parochialism.

When asked about the fact that many folk songs were "cleaned up" when arranged for publication, Purser revealed that about 40 per cent of the original titles had "indecent suggestions."

Another person in the audience suggested that the Enlightenment should not be seen as a purely 18th Century event since the scientific enlightenment spanned the 17th, 18th and 19th Centuries. Neatly tying this up to the theme of the day, Purser pointed out that James Clerk Maxwell was the great-grandson of the Scottish composer Sir John Clerk.

"What about women?" Rycroft emphasised that the arrangements were chiefly published for performance by amateurs and young ladies – the "house music" of the 18th Century.

Can we make sense of music and the Enlightenment without mentioning Calvinism? Purser replied that it was extraordinary that in 1697, a philosophy student (Thomas Aitkenhead) was hanged in Scotland for suggesting that the Bible was like Aesop's Fables, yet within 50 years we had Hume.

Are we still living in an enlightened society? Rycroft said we are enlightened but divided, then explained that what was special about the Age of Enlightenment was that it saw a meeting of literature, music and other disciplines, and "a wider sense of enquiry" which involved searching for the origins of music in antiquity. "The 18th Century saw a broadening of experience and a coming together," she added, "and Scotland was closer to Europe than London." Before the Enlightenment, people had been "cowed by superstition," said Norrington.

What about Scottish nationalism? Purser answered by explaining that the bagpipes were not in fact banned after the crushing of the Jacobite rebellion but that a piper was hanged for possessing "instruments of war."

What about young people's/popular music? Waters said that it was wrong to define classical music as the opposite of popular music, and that there are too many labels to describe different branches of music. Rycroft said that audiences in the 18th Century were hearing *new* music – the latest tunes mixed with traditional Scots songs. And Norrington concluded by bemoaning the inaccessibility of some modern classical music, saying that there was nothing wrong in being entertaining and keeping it simple – as Haydn did during the Enlightenment.

The Royal Society of Edinburgh

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The Enlightenment – An 18th Century Revolution of Thought

Report by Peter Barr

Tuesday 25 August 2009

7. On the Dark Side: Witchcraft and the Theatre

Chair: Professor Jan MacDonald FRSE, former Professor of Drama, University of Glasgow

Julian Goodare – Reader in Scottish History, University of Edinburgh

Ruth Little – dramaturg and Literary Manager of Royal Court Theatre

Rona Munro – playwright of The Last Witch

Adrienne Scullion FRSE – Professor of Drama, University of Glasgow

Spellbound

The background to the discussion was *The Last Witch* by Rona Munro, a play which was commissioned for the Edinburgh Festival, inspired by the legend of Janet Horne, a senile old woman from Dornoch found guilty of witchcraft and burned at the stake in 1727 – just before the Scottish Enlightenment officially started...

Julian Goodare kicked off the discussion by describing changing attitudes to witches in the early 18th Century, when *The Last Witch* is set. The common people may not have changed their beliefs very much, seeing witchcraft as the work of the Devil, but during the Age of Enlightenment, the persecution of witches was becoming “old hat.” The judiciary wanted to stop executions and the torture of witches. Politicians wished no more religious wars, and the church itself was growing much more moderate. Above all, scientific sceptics swept away beliefs in demonology because they thought the world could be explained in natural – not supernatural – ways.

In the 18th Century, the theatre also went through lots of changes, said **Adrienne Scullion**, and women became much more active – and respectable – players. To illustrate this, Scullion described three productions of *The Douglas* by John Home, reflecting different attitudes to Scotland, women and the theatre over the decades. At the first staging of the play in Edinburgh in 1756, the famous cry was heard “Whaur’s yer Wullie Shakespeare noo?” Set in the dark and mysterious Highlands, the play also attracted considerable controversy because there was a lot of prejudice against the theatre at that time – and against women appearing on stage. The Jacobite rebellion was also still fresh in the minds of the audience and cast its shadow over the production. In 1784, a second production starring Sarah Siddons was staged at the Theatre Royal. The theatre by then was a respectable part of city life and culture, and members of the clergy even took time out from the General Assembly to attend a performance. By 1796, the famous English actor Henry Johnson appeared in the play in full Highland dress, reflecting the fact that the Union was now more secure and Highland heroes no longer posed any serious threat. “The Enlightenment illuminated the dark recesses of theatre,” Scullion concluded.

Ruth Little talked about her interest in prejudice and scapegoating, and how witches represented opposition to authority – exemplified in modern times by a radical feminist movement of the late 1960s called WITCH – the Women's International Terrorist Conspiracy from Hell – who tried to “hex” Wall Street. The hunt for scapegoats usually leads to a paralysis of intelligence, Little continued, and the “perfect storm” of the witch trial. She also described the idea that witches were supposed to have more “slippery tongues” and an “insatiable carnal lust” which threatened the moral establishment, and quoted the character Elizabeth Sawyer in the Jacobean play *The Witch of Edmonston*: “It’s all one to be a witch as to be counted as one.” Little then said that witchcraft was a lens through which to observe the behaviour of local communities and ended by saying “we are brilliant at negative definitions” of those outside society, with the witch as the metaphor of the outsider.

Rona Munro shared her experience in researching and writing her play *The Last Witch*, and the challenge of making an historical play interesting and relevant to a modern audience. As well as saying that research was sometimes a good excuse for watching Vincent Price films, she praised the database created by Julian Goodare and colleagues which provided so much useful raw material. She also said that the story of Janet Horne was more interesting because of what we don’t know rather than the so-called “facts,” and described how Walter Scott ‘rediscovered’ and probably romanticised the story 60 years later.

Because Janet Horne held her hands to the fire which would later consume her and described it as a “bonny warming,” she was either suffering from dementia or extraordinarily defiant, said Munro, and the latter was how she chose to dramatise the character, since this was what she found more interesting and closer to her personal experience. Munro also said that women like Janet Horne who alienate or annoy their neighbours seem to suffer the consequences much more than men. “If women get some power, they are often seen as being repellent,” she added, referring to the demonisation of Hillary Clinton.

Discussion

“During the Enlightenment, people were not interested in popular ignorance,” said Goodare. So why were Romantics like Scott so interested in fairies, warlocks and witches? “In romanticism, there are not a lot of witches,” said Scullion, “but there is a lot of madness.” The witch as metaphor was reabsorbed into literature because the status of the witch had changed in reality, Little suggested, although Switzerland executed its last witch in 1782 – and pardoned her in 2009. Later on, Goodare revealed that the Scottish Government had asked him to write a report to advise on whether or not to pardon the estimated 3,000 women in Scotland who were put to the death as witches, to which he had replied that historians do not try to change the past but that perhaps a memorial may be a better idea.

Witches are seen as less evil today, added Goodare, because the old-style witches were not good role models. “Witch” was what other people called you, not the name you would choose for yourself.

Little had a theory that drama today is “full of vulgar but prophetic grandmothers,” then returned to her theme of the witch as a scapegoat, forced to confess because that is the only power left to them – exhausted by torture and the ordeal of the trial.

Munro then said modern audiences seem to be fascinated with the idea that curses have power, and suggested that during the Enlightenment, people accepted that our emotional experience of the world is not a natural one – it does not explain physics.

Asked why wizards seem to have a better press than witches, it was pointed out that “witch” was used for both men and women, but that the vast majority (85%?) were women. “There are many stereotypes,” said Goodare, “and most of them are female.”

Even though the Enlightenment may have caused witches to vanish, what about *Tam O’Shanter*? Little stressed the poem is a humorous work, while Scullion expressed the idea that the witches in *Brigadoon* are the 18th-Century equivalent of Jacobites.

Were Stalin's show trials and the Holocaust 20th-Century witch hunts? Absolutely, said Little, pointing out that throughout history, the Jews were associated with poisoning, just the same as witches. Little also suggested that the brain needs to create patterns, and that the scapegoat (or demonised witch) is a pattern that people construct so they have something to oppose.

The "Libyan dilemma" also made an appearance in the course of discussions, in the context of compassion and official apologies, while another member of the audience asked if more witches were persecuted before or after the Reformation. Goodare said that Protestants and Catholics were equally to blame since they both thought they would prove themselves more godly if they killed a few witches.

What about traditional healers? Goodare said that those put to death were not generally healers since medics were valued members of the community, even though during the Enlightenment conventional doctors sought to explain disease in rational ways.

The final question concerned Helen Duncan, a spiritualist who was prosecuted under the English Witchcraft Act in 1944. Was she not "the last witch"? Goodare pointed out that ironically the Witchcraft Act of 1736 in fact repealed the law that allowed people to be executed for witchcraft and abolished the crime of witchcraft, replacing it with the crime of 'pretended' witchcraft, since witchcraft was irrational in the eyes of the 'enlightened' people of 1736. Goodare elucidated that this was a kind of "Trade Descriptions Act for magical practitioners", prosecuting people who took money under false pretences. The 1736 Act was repealed by the Fraudulent Mediums Act in 1951.

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The Enlightenment – An 18th Century Revolution of Thought

Report by Peter Barr

Wednesday 26 August 2009

8. Science and the Enlightenment

Chair: Dr Daniel Glaser – Head of Special Projects, Wellcome Trust

Geoffrey Boulton OBE FRS FRSE – *Professor of Geology and Mineralogy, University of Edinburgh*

Dr John Henry – *Director, Science Studies, School of Social and Political Science, University of Edinburgh*

Let there be Newton

According to **John Henry**, Newton was the driving force behind the Enlightenment and science became the “new intellectual authority,” taking over from church and religion. “Science made the Enlightenment possible,” he continued, because of the amazing success of Newton’s masterpiece, *Principia Mathematica*. After this was published, people thought that everything was solved and that the only challenge left in science was “the donkey work” of the “Newtonian programme.” As the poet Alexander Pope wrote: “Let Newton be, and all was light.”

No-one else made such an impact as Newton, an iconic figure who became the embodiment of the Age of Reason, said Henry. His principles were applied not only to subjects like physics but also the study of man – a social science which was later developed by thinkers in Scotland such as Adam Ferguson and David Hume. Newton analysed morals as if he was conducting an experiment. Psychology, said Henry, also owed a lot to Newton – for example the idea that attraction (or the association of ideas) operated the same in the psychological dimension as in the physical world.

Henry then asked what made the Scottish Enlightenment so different, concluding that the reason was that Scots were very quick to adopt Newtonian ideas. And finally, he talked about the way that new branches of science emerged in the period, including chemistry and electricity, both Newtonian in origin. “Enlightenment science was Newtonian science,” he declared.

“Why did the flame of the Enlightenment burn so brilliantly in Scotland at the end of the 18th Century?” asked **Geoffrey Boulton**, suggesting the country had not been so bright at the start of the century. The John Knox-inspired system of education, the opportunities presented by Union with England, which opened up new markets, and the fact that so many Scots travelled abroad – these were the chief reasons Scotland progressed so rapidly during the period. Add to this so many people with so many different ideas in the same place at the same time, and the end result was an “interdisciplinary riot,” said Boulton.

So what was the role of science at this time? Boulton illustrated this by describing the careers of three leading Scots – the geologist James Hutton, the chemist Joseph Black and the inventor James Watt. Hutton was a “systems scientist” who reached the broad conclusion that the planet went through a cycle of changes similar to crop rotation, driven by internal heat and ground down by erosion. This not only brought him into conflict with contemporary scientific theory and the book of Genesis, but was frowned upon because it was associated with the “dangerous” idea of revolution. Hutton claimed that he based his theory on careful observation

of objective data, using the “minimum of imagination,” but we now know that he actually developed his theory before he had gathered the facts to support it.

Joseph Black, said Boulton, engaged in a “reductionist, experimental branch of science,” concerned with latent heat and other thermal phenomena, or “analytical chemistry.” He took “enormous leaps of understanding,” said Boulton, because he was “taking apart the nuts and bolts of reality.” Watt was an instrument maker who improved Newcomen’s first working steam engine by a factor of four to “power the industrial revolution”. He also owed little to science, said Boulton, who described Watt as an “enlightened technologist,” in tune with the ideas of a mechanical universe.

Boulton then subverted the idea that reason is by definition always a good thing. If these men had known the social consequences of their theories and inventions, he said, they may have “thought twice.” To explain this, he quoted the playwright Bertold Brecht, who said the aim of science “is not to open the door to infinite wisdom, but to set a limit to infinite error.” Boulton then developed this theme by discussing the modern scientific revolution ushered in by computing, “delving into the complexity of cause and effect” to produce unexpected outcomes or “emergent behaviour” which we are not “wired” to understand.

Boulton then asked: “Is our confidence in the power of human reason justified?” Is social progress a by-product of scientific progress? Or are enlightened views – such as historical progress and the “perfectibility” discussed by Adam Ferguson – profoundly flawed? “What would Watt and his fellow improvers have thought about the miseries of the industrial revolution and the industrialisation of slaughter?” asked Boulton. And is it true that social and ethical progress is fiction, while scientific progress is fact?

“If there were to be a modern Enlightenment, and we decided that human affairs should be conducted primarily through the power of reason, what would that reason look like?” he finally asked.

Discussion

Daniel Glaser began by asking if “Enlightenment” was the word used at the time, quoting Kant’s suggestion that it was an “age of enlightenment, not an enlightened age” – in other words, a process. There were also religious connotations. Henry said the Enlightenment was all about science and reason getting rid of the “powers of darkness” – superstition and religion. But were Newton’s theories elegant views of problems, explaining everything in terms of attraction and repulsion, rather than total solutions? Were Newton’s theories ‘beautiful’ simplicity or ‘dreadful’ simplicity? Boulton said that all new theories drag old baggage with them and wondered if Newtonian ideas were transferable across the whole domain. “Can there be a science of man in the same sense as natural science?” he asked. “Whilst the goal of natural science is to develop theories that contain universal laws, the social sciences deal with unique historical processes, bounded in time and space by the shifts in human beliefs, and by human responses to theories about them.”

Perhaps the laws of physics, for example, are not absolute truths but simply how the universe happens to be, emergent properties which we observe. Boulton then described how a computer model of climate change could be radically altered by reducing the data to 10 decimal places, leading to completely different results. “In a lawful universe,” he continued, “a small difference leads to huge consequences.” Newtonian laws work in the appropriate setting – e.g. they are good enough to fly to the moon – but they don’t work everywhere. Things are more complex than we used to imagine...

Glaser then asked about the boundaries between the different disciplines and the transferability of ideas. Who was the last person to know everything? Or would a modern Darwin be hundreds of people combined? A member of the audience then asked what the Scottish Enlightenment owed to John Knox’s faith in education. And do we have the same holistic qualities to launch a similar Enlightenment today? There is a hint this may be possible in our universities, the questioner said, but society as a whole seems to be getting educationally “poorer and poorer.”

Boulton said that education in 18th Century Scotland was “somewhat terrifying” and akin to the Soviet system in terms of its rigour – e.g. the need to be fluent in Latin at the age of 11 and enter university at 13 or 14. Compared to then, our universities today are weak and funnel people into narrow disciplines. “There is too much emphasis on what you learn, not how you learn,” he added. There is, however, an “underground” move to reform education, he added, to counter the “political quick fixes” which have messed up teaching and learning in recent years. Boulton later said that science changed the world without its acquiescence – another reason why science education is vital.

Glaser asked if we needed a degree of elitism in education. Civic society needs good scientific “education for all” but scientific progress needs a “conservatoire” or hot-house approach. Henry said that students were already specialists before they started PhDs but suggested that we had to be pragmatic.

Are we too dependent on computer models – and not measuring enough real-life phenomena? Boulton said we get too excited by computers because they can do experiments nature can’t do – e.g. asking lots of “what-if?” questions. “We need a more balanced, inter-disciplinary approach,” he suggested. Asked about innovations in technology driving Enlightenment thinking, Henry said that Newton’s emphasis on doing experiments was the driving force rather than technology – apart from microscopes and telescopes, Boulton added.

Was the secret of the Scottish universities the fact they were unhampered by the church – unlike universities down south which were like the ‘madrasses’ of the Church of England? The Scottish Enlightenment was “the Enlightenment of the professors,” said Boulton. Henry then suggested that although Newton was the key figure of the Enlightenment, many people have turned him into an icon or a figment of their own imagination. He was also a secret heretic who managed to avoid the need to bow to religion. Glaser asked if Newtonian principles could really be applied to the social sciences. They may help chemistry but was that taking it too far?

Did the theory of quantum mechanics turn the ideas of the Enlightenment upside down? Glaser linked this to chaos theory and the “emergent properties” mentioned by Boulton, who then threw uncertainty into the mix, saying that science was not the ultimate path to “wisdom, understanding and truth” and that the greatest achievement of science was to say that it was impossible to know everything. “Most scientists know that their theories are probably wrong,” he added. Glaser pointed out that some people may react badly to the idea of not being able to know things. Henry said that thinkers like Einstein never accepted the uncertainty theory, adding that “the jury is still out on quantum theory.”

A member of the audience then asked about the problem of globalisation and the widening gap between rich and poor countries, despite economic and technological “progress.” Another person said that Enlightenment ideas may have their roots in the 17th century, but what about the Renaissance? And are we now in a post-Enlightenment Age? Henry pointed out that science made a lot of theoretical progress in previous ages, but it was not until Bacon and Newton that this was translated into practical benefits for the good of mankind. Boulton developed this theme by describing how people like Hutton and Black were motivated by the idea of improvement and material progress, but he queried whether we really have made significant progress or, rather, created the seeds of our own destruction. “We may live longer and have much more stuff, but are we wiser?” he asked. “Do we have greater civility than 200 years ago?” Are we better able to prevent environmental catastrophe? Or will our belief in reason “open the door to tragedy” and make us more likely to bring society to a shuddering halt?

The Royal Society of Edinburgh

Edinburgh International Festival

The Enlightenment – An 18th Century Revolution of Thought

Report by Peter Barr

Sunday 30 August 2009

9. *The Face of the Enlightenment*

Chair: John Leighton – Director General of the National Galleries of Scotland

Anne Bogart – *Artistic Director SITI Company*

Lee Breuer – *Co-Artistic Director of Mabou Mines*

Roger L Emerson – *Emeritus Professor, University of Western Ontario, Canada*

Paul Goring – *Senior Lecturer, Norwegian University of Science and Technology, Trondheim*

Appearances can be deceptive

Was the face of the Enlightenment the portrait of David Hume by Allan Ramsay (“not an easy face to paint”), a face scarred by smallpox or the head on a banknote? This was how the chair **John Leighton** summed up what was probably the most abstract debate of the series – trying to understand the Enlightenment by “reading” its appearance.

Leighton set the tone when he asked at the start if the face may be considered as a metaphor for the Enlightenment or if we should focus on what we can tell from painted likenesses of people – the private and public faces of 18th-Century portraits. He also suggested that in an age of economic and political uncertainty, we may look back on the Age of Enlightenment with a lot of nostalgia.

First speaker **Roger Emerson** began by saying there was little agreement on what the Enlightenment actually was, or when it happened. Was it what Kant described as freeing oneself from “self-imposed immaturity” or was it more to do with utility, as described by the Scottish encyclopaedist, William Smellie? Did it start with Voltaire in 1734 or Spinoza in the 1670s? Did it end after the French Revolution, when many critics thought it had led to the Terror? With this in mind, to talk about the “face” of the Enlightenment depends on how you define it, he said.

Emerson also said that the Enlightenment was part of a large “improvement programme” dating back to the Renaissance and the Reformation, the major difference being the ideas of the sceptical philosophers and scientists, and the application of their thinking across a number of disciplines.

The Scottish Enlightenment was not known as such until 1906, and Emerson asked if its face could perhaps be the four paintings of the Leadhills Mines by the Scottish painter David Allan recently acquired by the National Galleries of Scotland, because of their association with improvement (the public library), science and technology, or the portraits of people such as Lord Alva, David Hume or Archibald Grant. Only a few thousand people were involved in the Enlightenment in Scotland, and most of them were Lowlanders. Very few were women. And ironically, Emerson concluded, the faces were more likely to be

Dutch or Italian since these were the portraits that people in Scotland bought at the time. **Paul Goring** decided to take the subject literally, talking about the “reliability of the face as an indicator of character,” and stating that although we think of the body as a natural constant, it is possible to study the history of the body in various ways, including the differences between the face of the Enlightenment and our faces today. At that time, many faces were marked by smallpox, despite the popular use of cosmetics, and many people’s noses had collapsed because of mercury treatment for syphilis. People then also consumed lots of sugar and dentistry was not widely available, so most people also had very bad teeth. Changing social patterns also had an impact, said Goring. Today we are the ‘Facebook’ Generation, but at that time there was a major shift in society because of the growth of public life – including coffee houses and public exhibitions. Doing business “face to face” meant that reliability was also a critical factor. Was the face a window or a mask?

Finally, said Goring, even though people were ‘performing’ in public, they also yearned for honesty, and this led to the rise of physiognomy as a respectable discipline during the 18th Century, even though it was later discredited as a science.

As a theatre director, **Anne Bogart** talked about how she first thought about how a stage play should ‘look’, and suggested that we are often ‘seduced by the façade’ – interested in looks rather than the impulse or the ‘energy’ behind an idea. She then declared that we are at the end of the post-modern era. There is nothing left to deconstruct, she said, so maybe we are now entering the age of the “New Enlightenment,” rediscovering stories and “new ways of meaning through stories.”

Fellow director **Lee Breuer** began in provocative style by declaring that all artists focus on “making a buck,” and then described the history of patronage, pre- and post-Enlightenment. Before the Enlightenment, Breuer said, artists had to go to the church or aristocracy for funding, and as a result became court “playthings” or jesters, creating work which promoted the cause of their patrons. After the Enlightenment – with its ideas of democracy, technology, science and economics – what changed? Were we more advanced than the ancient world, when women, animals and prisoners were slaves? Breuer suggested that even though machines are supposed to be doing the dirty work now, we have replaced one form of slavery with another and all become “wage slaves.” Politicians and corporate business are the new patrons of the arts. The game has changed, he added, but the economics have not. “We may as well hitch-hike to Rome,” he suggested.

Discussion

Asked whether the Enlightenment *did* lead to progress, Emerson said he doesn’t believe in “the Enlightenment Project,” but does think people at that time did want to improve things – for example, greater productivity and longer life. Many patrons, he added, had political motives and sought to promote their vested interests, but improvement was also important. Is it ‘wishful thinking’ to package the Enlightenment as part of ‘Brand Scotland’ – in the sense that it was not really Scottish? The suggestion is that Scotland had its own brand of the Enlightenment, different to the rest of Europe but certainly not unique.

The next question focused on physiognomy and how it was rejected as a science because it was not based on rules of evidence. The questioner said that science made progress because it was evidence-based, yet other areas of life did not progress at all – ironically, judges still wear wigs. Goring answered that although wigs may look “silly,” they have survived because they symbolise authority.

The idea of “face” was then stretched to cover the way people talked in 18th-Century Scotland, with many leading figures taking elocution lessons to help them sound more like the English.

How much does the Enlightenment pervade modern society – and what about the reaction against it? Emerson discussed how some philosophers have questioned the practical benefits of the Enlightenment and the dangers of acting upon the truth – i.e. just because science says something is true or appears to be true, the consequences may be disastrous, especially if the fanatics take over.

Also stretching the meaning of “face,” the audience were told the story of Adam Smith seeing a man kick a dog and another man helping an old lady crossing the street, only to discover later that the man kicked the dog because it had rabies and the other man was taking the old lady to her lawyer to change her will in his favour. In other words, appearances can be deceptive.

Theatre then came into the discussion, with a question about how the Enlightenment influenced modern theatre. Bogart said that theatre was about social systems and “getting along,” with even the most despicable characters attracting attention, while Breuer said producing a play is like science – a scientific experiment with human behaviour.

Leighton wondered if the process of Enlightenment meant constant process or was cyclical. Bogart then described how many thinkers in the 1980s thought the idea of the rational mind governing the world was simply wrong. Asked if he was optimist or pessimist, Emerson said that like Hume, he thought “things may end badly, or perhaps not,” describing himself as an “optimistic pessimist.”

Goring then discussed how science was not always regarded as such a good thing, since during the Enlightenment, most people thought our natural resources would never run out. There were very few dissenters, with the notable exception of thinkers like Wollstonecraft who expressed concern about the population explosion.

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Monday 31 August 2009

10. Moral Universals and Moral Progress: The New Science of Good and Evil

Paul Bloom – Professor of Psychology, Yale University

Introduced by: Dr Philip Campbell – Editor-in-Chief of Nature

Are moral judgements ruled by head or heart?

Where do moral values come from? Do we make our moral judgements based on reason or emotion? Can babies tell right from wrong? And would babies 'punish' a 'bad guy' if given the choice?

In the 1950s, most people thought inter-racial marriages were wrong. Nowadays, the opposite is true. Meanwhile, attitudes to many other social, moral, philosophical, religious and political issues have also been turned upside down. But what has changed since then, and is this moral progress or simply a change?

Just because we are 'disgusted' by incest, necrophilia or the idea of eating the family pet, does that mean such 'disgusting' acts are morally wrong? Is it *always* better to sacrifice one life if that will save five lives?

Did *Uncle Tom's Cabin* do more to end slavery in the US than thousands of essays which argued the same? Did the comedy show *Will & Grace* do more to change attitudes to same-sex relationships than years of activists demanding gay rights?

These were just some of the questions posed by Paul Bloom in the course of his lecture – a cross between a stand-up act, psychology experiment and public opinion poll described by one member of the audience as "a master class in the art of public presentation."

The Enlightenment may have been all about reason, but Bloom subverted the idea that we base our moral judgements on reason, suggesting that emotions and the influence of 'stories' are more critical factors than rational arguments – based on his psychology experiments with babies and adults.

Bloom also suggested that people are 'hard-wired' to make moral judgements, illustrating this with his description of an incident in 1848 when a man called Phineas Gage suffered terrible brain damage after an accident, leading to a major change in character, which suggested that his physical brain played a greater role in making moral judgements than his powers of reason, which were still quite intact. This raised the question, said Bloom, of whether gut feeling or reason determines our ability to tell right from wrong.

Bloom then discussed the idea of the "foundations of a universal morality" and our altruistic aversion to the pain of others, citing his experiments with babies, observing their reactions to a cartoon which portrayed a 'good guy' and a 'bad guy', to show that the babies were 'hard-wired' to be capable of telling the difference and also capable of altruistic behaviour – unlike

psychopaths whose lack of sensitivity makes them indifferent. (Bloom also claimed that James Bond was the perfect example of a psychopath, rather than Hannibal Lecter.)

“Instinctive empathy is universal, natural and important,” said Bloom, but there are huge differences when it comes to attitudes towards more controversial subjects such as sex and religion, and Bloom believes that this can be explained according to three types of ethics: autonomy (concerned with notions such as freedom, rights and equality); community (concerned with duty, status, hierarchy and interdependence); and divinity (concerned with purity, sanctity, pollution and sin). There are also radical differences amongst people according to their politics, with conservatives tending to be ‘disgusted’ by certain things and liberals tending to say that something is ‘OK as long as it’s fair and no-one is harmed’.

To test where people sit on the political spectrum, Bloom then presented four scenarios – incest, eating the family dog, using the national flag to clean the toilet and having sex with a dead chicken – and surveyed how the audience reacted to each in terms of right and wrong. Every situation was more complex than it appeared, and this led to complex responses – and moral dilemmas. “People struggle to find reasons to say why something is wrong,” Bloom declared, and our gut feelings tend to hold more sway than rational arguments.

To illustrate this further, he presented two scenarios where we are asked to decide the fate of several people standing on a rail track, as an express train approaches. In the first case, the train will kill five people, but we can pull a switch to divert the train onto another line, thus killing only one person. Do we pull the switch – saving five people by causing (remotely) the death of just one? Most people tend to say yes. In the second case, five people are again on the rail track as the train approaches, but this time we are standing on a bridge with a very large person – ‘the fat man’ – beside us. If we push the fat man off the bridge onto the rail track, the train will stop and as a result the five people will be saved. Bloom then explained that most people find it harder to decide what to do in the second scenario, measured with a brain scan of ‘emotional involvement’ which highlights different patterns of activity in different areas of the brain depending on the choice being made, even though it is logically the same decision – five lives versus one life. The key difference, said Bloom, is that in the second scenario, we have to actually touch the person, not just pull a switch. Bloom also suggested that how we express such dilemmas can have an effect on the outcome – for example, using words like ‘killed’ or ‘saved’ can influence people’s decisions.

Bloom then quoted David Hume: “Reason is, and ought only to be, the slave of the passions,” and said that his own findings also suggest that emotions tend to over-ride the rational side of the brain – for example, when it comes to changing attitudes to slavery and sexism. Bloom also said there is a big difference between our idea of moral progress and what he prefers to call “moral change.”

“What are the forces underlying moral progress?” he asked. And the answer, he suggested, was imagination and the power of stories which exploit our natural, empathetic responses to the real-life suffering of others. For example, he explained, when charities use real people to make an appeal, the end result tends to be much more successful because we find it harder to turn down a person who really exists and stories which tug on our heart strings, rather than a rational, impersonal appeal. Similarly, feeling disgusted tends to shape moral judgements, even though this is an unreliable indicator of ‘right or wrong.’

In conclusion, Bloom said, we are ‘hard-wired’ to be moral creatures, our morality is driven by gut feelings rather than reason, and our gut feelings tend to be triggered by stories. “Man will become better,” he concluded, quoting Chekhov, “when you show him what he is like.”

Discussion

Several people rose to the defence of David Hume in the course of the discussion, perhaps because the great philosopher had lived just a few yards away from the venue, at the top of the High Street. One person suggested that Bloom was more 'Humeian' than he let on, and argued that Hume spent hundreds of pages writing about the emotions and passions, and the importance of their relation to reason.

Another questioner suggested that when it came to analysing babies' responses in psychology experiments, we should remember Adam Smith's view that it was impossible to see inside people's heads, and thus 100 different babies may be thinking 100 different thoughts. Was the child motivated to help or did the child want to impress by helping? Was there any difference between the expression 'hard-wired' and what Hume called 'innateness?' Bloom said that 'hard-wired' meant innate not inborn, and suggested that Hume would not have taken theories like behaviourism seriously.

Was tolerance always a good thing? Sometimes it comes at the cost of the community – the more tolerant we are, the less communal we become. Trade-offs will always be necessary, said Bloom. What about the different types of judgements made by individuals and small groups of people versus large global groups? Bloom said some people think we should treat 'foreigners' in faraway places the same as we treat our own children, while others think we should in fact value our own children less!

Should we have different laws for different age groups, because different age groups have different values? "Moral psychologists explain what happens, not what should happen," said Bloom.

Interlinked causality is complex, said a member of the audience. Altruism can be a luxury. Our perceptions and moral opinions may change because the state improves things – e.g. by reducing the crime rate. Children living in war zones may think and behave very differently to children from happy homes. Richer countries may exhibit different types of moral behaviour. Bloom said it was fair comment to suggest that selection bias could be a problem.

Bloom then discussed the possibility of doing an experiment with babies which involved the babies 'punishing' the 'bad guy,' and said this scenario may lead to problems – perhaps it would be better for the babies to take some cookies away from the bad guys rather than be 'cruel' to them. A hint of his future research?

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The Enlightenment – An 18th Century Revolution of Thought

Report by Peter Barr

Tuesday 1 September 2009

11. *The Enlightenment and the Academies*

Chair: Louise Richardson – Principal & Vice-Chancellor, University of St Andrews

Lord Sutherland of Houndwood KT FBA PPRSE – *former Principal, University of Edinburgh*

Paul Wood – *Professor of History, University of Victoria, Canada*

Back to school

Chair **Louise Richardson** put the discussion in context by describing how the academies of the 18th Century expressed the basic principles of the Enlightenment by trying to be independent of the church and the state, encouraging people to think for themselves and be tolerant of other people's ideas.

Paul Wood started by defining a few basic terms, asking if the Enlightenment was a period or a cultural and intellectual movement. If it was a period, it lasted from about 1690 until 1805, when the Scottish clergy vetoed the appointment of John Leslie as a professor at the University of Edinburgh, after a century when the church had generally not interfered with such matters.

If the Enlightenment was a cultural movement, said Wood, then its leading principle was toleration – at least in theory if not in practice, as exemplified by Locke tolerating everyone except Catholics and atheists. Another pillar of the movement was the idea that tradition can't sustain a modern way of life, and that reason, rules of evidence and sometimes utility were what really mattered. The natural sciences were also of central importance, since the ideas of Newton and Bacon provided a "proper universal method" in the search for the truth. Newton also showed us, said Wood, that truth was something that could be discovered. And "commitment to improvement" was the other major characteristic, he added, whilst we should not forget that most scientists also supported religion.

Turning to the meaning of 'academies,' Wood said that some institutions of that time were set up with a more practical and commercial emphasis, whilst national academies such as the RSE were closely tied to universities. Two major factors were at play in 18th Century Scotland, he added. There was general consensus that education was a good thing because it would lead to moral and material improvement, in a country which was "culturally backward" and had suffered economic disasters and famine in recent decades. The school curriculum was reformed to meet the needs of the age, and this led to dramatic progress in disciplines such as medicine and even radical ideas such as education for women. Wood also set out to 'ruffle some feathers' by discussing academic freedom, and the fact that it did not exist in the 18th Century as we think of it today. Academics could philosophise freely but they tended to avoid questioning the basis of religion, and the establishment still 'micro-managed' society, via

figures like the third Duke of Argyll who was one of the great architects of the Scottish Enlightenment – although also an enlightened and moderate man, and a good scientist. The paradox, suggested Wood, was that state control today suggests negative things such as bureaucracy, whilst then it did good things.

Stewart Sutherland began by reacting to this latter statement, saying that if you must have a despot, “make sure he’s an enlightened despot.” He then said that the Enlightenment was not a thing or event but a process, with no specific starting or end point, and that he would discuss it via three ‘vignettes’ which illustrated what was going on in Scotland during the 18th Century and beyond.

First, he told the story of the ‘perturbation of the waters’ on Loch Ness on 1st November, 1755, when extraordinary four-foot-high waves were observed. The cause of the phenomenon was the earthquake in Lisbon on the very same day, whose seismic movements were recorded many miles away. What was significant, said Sutherland, was that scientists – influenced by Newton – recorded the event and analysed the evidence, and sent a report to the Edinburgh Philosophical Society which we can still read today. “This was not a cause or consequence of the Enlightenment, but the Enlightenment at work,” said Sutherland.

The second point concerned the importance invested in education in Scotland, and the fact that the University of Edinburgh was not established by Papal Decree like other institutions but was created by civic demand. In Aberdeenshire, he added, there were three universities in 1600, including one in Fraserburgh, also established because the community wanted it. This tied in with John Knox’s belief in the fundamental importance of education and the idea of a “school in every parish.” The church also believed that first principles and reason were prerequisites for reasonable debate – even when it came to matters of faith.

Sutherland then described how universities went out “into the world,” with Scottish influence spreading to London and Princetown and even to the University of Chile, whose first rector Andres Bello (Simon Bolivar’s tutor) was deeply influenced by the ideas of Scottish philosophers including Thomas Reid and Dugald Stewart.

Finally, Sutherland said, there was a widespread belief that for reason and rationality to rule in society, we needed to educate people – starting in primary school. But today there are also two problems, he added. First, as the Enlightenment principles are institutionalised, academies take on lives of their own and it becomes increasingly difficult to resolve the competing interests of different disciplines, whose knowledge is increasingly fragmented and compartmentalised. Secondly, we should note that universities and academies like the RSE are hugely dependent on the public purse – not always a bad thing but also not always a good thing.

Discussion

The discussion kicked off with both speakers comparing the media now with the Edinburgh clergy of 1805, possessing the same kind of power to ruin political and academic careers – as if the Inquisition has become *The Independent*.

Should the New Enlightenment be owned by the whole world, including the poor? The big problem, Sutherland said, is that we are not educating people enough. We need to be guided by empirical principles and open to what we can learn from others, not driven by our different ideologies. “Politicians always want quick answers,” he declared, but we need more empirical studies, not panaceas.

Wood expressed concern about the Americanisation of the UK since the mid 1970s, when he was a student here. This included a belief in market forces (which he later described as a “fetish”) being the best way to drive education, distorting the ideas of Adam Smith, who believed that the state must play a key role in education, because if we don’t educate our citizens, we risk turning people into “moral pygmies.”

Did the Enlightenment happen? Did we really improve and become more tolerant? Probably not, answered Wood, but although we cannot replicate the Enlightenment today, we can draw on its values.

A 'human geographer' in the audience then asked why the great enlightened thinkers of the 18th Century were relatively silent on social and political matters – e.g. democracy, the harsh judicial system and equality. Sutherland said that we must try to understand the relative values of different historical periods. Our ancestors lived on the fruits of the slave trade, but we should also remember that we still enjoy many of the benefits now. On the other hand, many Scots Republicans supported George Washington and several of them signed the Declaration of Independence, at a time when you defied King George III at your peril. Wood said that democracy was not necessarily seen at the time as a good thing, since democratic movements in Ancient Rome had been seen to lead to bloodshed and political confusion. At the same time, Thomas Reid and several others in Scotland were attacked for sympathising with the ideals of the French Revolution, and even threatened with violence, whilst other thinkers such as William Ogilvie, advocated the abolition of private property. The Church, Wood added, even passed a motion at the General Assembly in 1784, calling for an end to the slave trade.

One questioner asked about China and the paradox of academic excellence in a country with strict state controls. Or are Westerners simply too smug and unable to accept that China may succeed by doing things its own way? Sutherland replied that China is achieving a lot while facing many highly complex problems, and reminded the audience that Hume was a victim – rejected for an academic job in his homeland but 'lionised' in Paris. Wood said that it may seem paradoxical that intellectual progress may be possible without academic freedom, but micro-management – as opposed to state control – can be bad for large national projects.

Did many Enlightenment thinkers exhibit great courage or make the ultimate sacrifice for their beliefs? Wood said Galileo suffered more during the Inquisition than anyone during the Enlightenment. Are we unenlightened because we are not learning languages other than English?

The final question was about the New Enlightenment and if this may be driven by the Internet. Sutherland acknowledged that the Internet's 'mechanics' are a good thing but, like the printing press, it will not change the world but simply provides us with the technical means to do so. And we still need to teach the skills people require to use the Internet properly, he added. Google may be the new *Encyclopaedia Britannica*, said Wood, and the Internet expands the public sphere and makes us more outward looking, but we must be careful when it comes to trusting Internet-sourced information, not believing everything we see or losing our ability to criticise.

The Royal Society of Edinburgh

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The Enlightenment – An 18th Century Revolution of Thought

Report by Peter Barr

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12. Political Economy: Adam Smith and Others

Chair: Gordon Brewer – *Presenter of Newsnight Scotland (BBC Scotland)*

James Buchan – *Author of Adam Smith and the Pursuit of Perfect Liberty*

Andrew Skinner FRSE – *Adam Smith Professor Emeritus of Economics, University of Glasgow*

The conversation continues...

Gordon Brewer introduced proceedings by declaring that it was cheering to see so many people attending the Enlightenment discussions, at a time when we are being “bombarded with articles about dumbing down.” He then said that Adam Smith and his theories provided the backdrop to our current economic crisis, “a world in which the banking system has exploded and is now being propped up by taxpayers’ money.” He also said that there had been a re-evaluation of Smith since the 1980s, when it became popular to say “let the market do what it wants,” then posed the question: “What are the limits?”

James Buchan outlined Smith’s life from his birth in Kirkcaldy in 1723 until his death in Edinburgh in 1790, to describe the human being behind the great legend. Smith’s father was a customs official, a servant of the new administration set up after Union, but he died before his son was born. Smith was devoted to his mother all his life and never married, said Buchan, and was deeply affected by the death of his mother in 1784. Smith studied at the University of Glasgow (which he loved) and Balliol College in Oxford (which he detested), said Buchan. Early on, he was engaged in philosophical enquiries, and wrote an essay on astronomy. In 1746, he returned to Scotland with no prospect of employment, no vocation or religious calling. Two years later he gave a series of lectures in Edinburgh which led to his appointment as Professor of Logic and Rhetoric at his *alma mater* in Glasgow, becoming Professor of Moral Philosophy the following year.

Smith was concerned with institutions such as the family, marriage and taxation, and this led to an interest in political economy and jurisprudence, and the question of why some countries are more prosperous than others – a subject which inspired *The Wealth of Nations*. Buchan then quoted Smith stating one of his central beliefs: “Little else is requisite to carry a state to the highest degree of opulence from the lowest barbarism but peace, easy taxes and a tolerable administration of justice.”

In 1759, Smith published his *Theory of Moral Sentiments* and enjoyed worldwide success, which led to him embarking on a Grand Tour of Europe in 1764 on a pension of £300 a year as tutor to the young Duke of Buccleuch. Even though he hated the idea of a Grand Tour, Smith grasped the opportunity to meet intellectuals like Voltaire and Franklin during his travels, and returned to Scotland in 1766, taking another nine years to complete *The Wealth of Nations*, in the course of which a banking crisis rocked his patrons, the Buccleuchs. What made the book

so successful, said Buchan, was that it was a new way of looking at history and society – “not moralistic and with no political axe to grind.”

Buchan then described Smith’s final years, his absent-mindedness and “worm-like” way of walking, and summed up the major factors in his career. Most importantly, said Buchan, Smith believed (like his friend David Hume) that a single principle like sympathy (the ability to put yourself in somebody else’s position) or specialisation could explain a wide range of philosophical phenomena. Like many others of his age, he was also enthralled by natural science and the theories of Newton. During his lifetime, many other factors also influenced his thinking, such as Scotland becoming more wealthy and becoming a more polite and ‘polished’ society. The supernatural was also abolished from philosophy, with a little help from Smith himself. Above all, said Buchan, Smith focused on the betterment of society and the drive for prosperity, and was anti-authoritarian as well as a republican, against the idea of either being ruled from above or below.

After describing Smith’s core beliefs (accepted standards of behaviour, rules of law, the close links between ethics and economics, etc) and tracing his philosophical career, **Andrew Skinner** focused on Smith’s meditations on market forces versus regulation, as well as the doctrine of unexpected outcomes and the so-called ‘invisible hand,’ and how we all live as ‘merchants’ by exchanging the fruits of our labours. Smith’s critique of the mercantile system may suggest that economic equilibrium is like a law of nature, but when should the state intervene?

Smith talked a lot about high concepts such as freedom and security and dynamic global economic forces, but when it comes to more domestic issues, things become more difficult. Smith was also not a blind believer in the supremacy of free market forces. According to Skinner, Smith advocated an end to the apprenticeship system and trade guilds, believing they inhibited freedom of trade, but he also advocated taxation, and was acutely aware of the problems of the credit structure. Smith sought to create an economic environment in which individual initiative could thrive, but he also thought that government must provide public works, Skinner said, believing that the profit motive would not provide things like bridges and roads – or education. Many areas required intervention, and government must scrutinise and regulate to protect people. There are negative and positive freedoms, said Skinner, and increased wealth can also lead to damage.

Discussion

Brewer kicked off by asking Buchan to describe Smith’s final words – and how he would “continue this conversation at another place.” Brewer also talked about the “spectacular failure of trust” in our financial institutions, and how Smith not only wrote about exchange but also the importance of trust. Skinner said that Smith recognised the need for government to regulate because self-interest makes trust a problem. What is Smith’s relevance to the world of today? Skinner believed that Smith’s principles of state intervention can be applied very widely today – even more than in the 18th Century.

What about Smith as a “social animal?” Buchan said that Smith and Hume shared a belief in the primacy of sentiments and passions, and how these justify and deliver opinions. He then described Smith’s *Theory of Moral Sentiments* and its concern with the “universal human faculty” of sympathy – if we can sympathise with others to judge good or bad, then we can also become a “spectator” able to judge our own actions.

Smith is often called “the father of modern capitalism,” a member of the audience stated, but did he also inspire Marxism? Buchan said that Marx was a great admirer of Smith, and was particularly interested in what he said about the crippling effects of the factory system – which helped Marx develop his theory of alienation. Skinner said that Marx actually got these ideas via Adam Ferguson, since many of Smith’s musings on inequality and the oppressiveness of industry can be read in his early drafts of *The Wealth of Nations* and other early works not available to Marx.

Was there not a conflict between Smith as a Commissioner of Customs and Smith as a champion of free trade? Buchan described how Smith was aware of the contradictions of his official position, and was also concerned to discover that many of his own possessions were technically contraband and should be destroyed. He also said that Smith was an advocate of intervention, and thus there was not a real conflict.

One member of the audience talked about the influence of Smith on James Hutton, and recommended Hutton's little-known work, *Principles of Knowledge*. He also described Hutton as the star of the Enlightenment because he revealed how the earth works. Brewer commented that this illustrated the fact that Enlightenment thinkers were interdisciplinary in their approach.

The next questioner asked what Smith would have thought of the education system today. Skinner said that Smith was concerned about two things – the compulsory education of the poor and the importance of an educated “higher class” of men. Smith also believed that people should be induced to provide public works, Skinner added, and also to make them efficient. He also argued that this would work when people saw it was in their interests to do so – e.g. teachers paid according to results. Buchan pointed out how Smith believed we should be educated *and* entertained.

It was no accident that Smith emerged in Scotland at that time, a questioner claimed, because he saw the benefits of free trade with England and minimal government in Scotland. Buchan said that Smith believed the Union had delivered Scotland from the hands of a “delinquent aristocracy,” and saw the opportunities for Scotland via trade with the rest of the Empire, with tobacco at the top of the list. Smith also believed “federation was better than independence.” Skinner said that Smith was Anglocentric rather than Eurocentric, having seen for himself the “backward” conditions in Europe, and described how opinion in America was largely against Smith's “fuzzy philosophy.”

Why were Scottish Enlightenment thinkers mostly Hanoverians who hid their religious views? Buchan suggested that this was based on a mixture of ambition and realism. “After the ‘45,” he continued, “the romantic idea of Scottish independence under French protection was not on the cards. It was a fantasy.” Robert Burns was a Jacobin or Jacobite depending on what suited him best at the time.

What about defence of the realm? Buchan pointed out that Smith regarded this in the same way as public works or education, as something which government had to look after. What about Smith's relevance today in terms of values, not just economics and the role of the state? Smith wrote a lot about values in relation to commerce, said Skinner, as well as how individual beliefs can impinge on economic freedoms.

Buchan suggested that Smith's ideas were perverted by the statement “greed is good,” while Skinner pointed out that Smith believed our economic choices are socially constrained by our concerns about their effects on other people. Buchan concluded by saying that Smith was “more praised than read” – especially by economists and politicians.