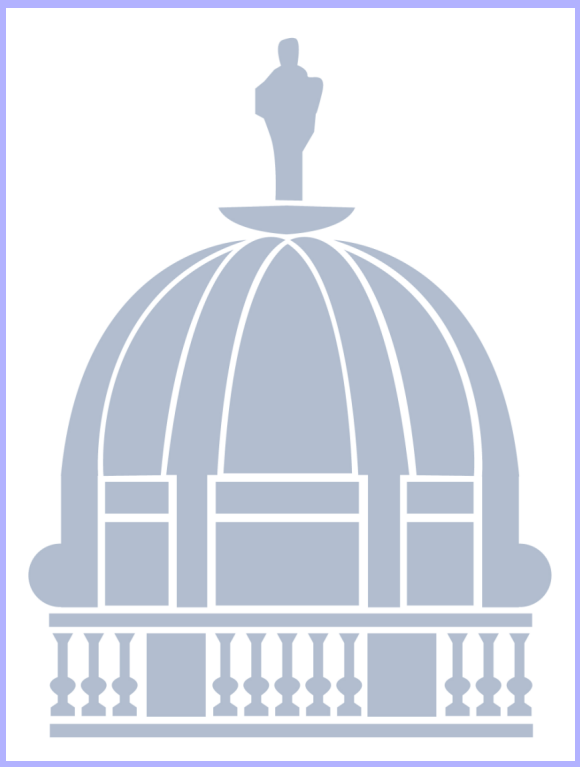
RSE YOUNG ACADEMY OF SCOTLAND

Big Issues or Small Tasks?



Launch of The RSE Young Academy of Scotland

Tuesday 29 November 2011

The RSE Young Academy of Scotland
Tuesday 29 November 2011
at The Royal Society of Edinburgh

LAUNCH PROGRAMME

11.45–12.15 Registration

12.15–12.45 Welcome
- **Professor Alice Brown**, General Secretary of the RSE
- **Sir John Arbuthnott**, President of the RSE
- **Dr Martin Parker**, School of Music, University of Edinburgh

12.45–13.45 Lunch

13.45–14.00 Break

14.00–14.30 *Major Challenges: Radical Solutions*
- **Kenneth Roy** – Chair
- **Shami Chakrabarti** – *The Future of Society*
- **Professor Steve Jones** – *Where Will Science Take Us?*

14.30–16.00 Debate facilitated by **Kenneth Roy**

16.00–16.15 Vote on logo for the Young Academy

16.15–16.30 Break

16.30 Reception

17.00 *The RSE Young Academy of Scotland*
- **Professor Alice Brown**, General Secretary of the RSE
- **Sir John Arbuthnott**, President of the RSE
- **Professor Anne Glover,** Chief Scientific Adviser for Scotland

18.00 Reception ends

Introduction

Professor Alice Brown
The General Secretary of the RSE, Professor Alice Brown, welcomed members of The RSE Young Academy of Scotland to the Royal Society of Edinburgh. She thanked colleagues who had worked tirelessly to get The RSE Young Academy of Scotland from an initial idea to the reality of launching the first Young Academy in the UK, with a founding membership of 68 very talented individuals.

She made special mention of Professor Geoffrey Boulton, the immediate past General Secretary, and Professor Peter Holmes, who was until recently the Society's Fellowship Secretary, both of whom had been central to the development of the Young Academy under the expert leadership of the RSE's immediate past President, Lord Wilson, they worked to gain the support of the RSE Fellowship and Council for the vision that has become The RSE Young Academy of Scotland.

The Young Academy is a truly interdisciplinary forum which Professor Brown hopes will harness the talents of the members in new and stimulating ways, to address the big questions facing society today and in the future. She stressed that the challenge for the membership would be to ensure that the voice of the Young Academy is heard and that it has impact and influence in Scotland and beyond. She wished the members every success in taking forward this new venture.

Professor Sir John Arbuthnott
The RSE President, Professor Sir John Arbuthnott, congratulated the members on their appointments to The RSE Young Academy of Scotland – the first Young Academy in the UK. He added that the Young Academy is a unique and new development and that the launch event and debate was being held to mark this exciting and historic initiative.

Sir John outlined the RSE's vision that the Young Academy will bring together the best of Scotland's emerging scholars and professionals to provide a distinctive and influential voice that will be central to the future leadership and vitality of Scottish society. He added that the members' enthusiasm and drive, underpinned by support from the RSE, would ensure that the RSE's vision is realised and that the Young Academy will make a significant impact.

Finally, Sir John pointed out that the members were in the enviable position of being able to set their own agenda for The RSE Young Academy of Scotland, and to shape it into an organisation of which the RSE and Scotland can be proud; he urged members to seize this opportunity to make a difference.

Big Issues or Small Tasks?

Take more than 60 of Scotland's most gifted young people and put them in a room with one of the UK's most distinguished scientists and one of its most controversial human rights campaigners and what do you get? The centrepiece of the inaugural meeting of the RSE Young Academy was a debate entitled "Major Challenges – Radical Solutions" and some of the ideas which emerged from the discussion could become the agenda for the next stage in the evolution of the new organisation – the first of its kind to be set up in the UK.

Guest speakers: Shami Chakrabarti (Director of Liberty) and Professor Steve Jones (Emeritus Professor of Genetics at University College London)
Facilitator: Kenneth Roy (journalist and broadcaster)

Setting the Scene

Shami Chakrabarti kicked off proceedings by describing the “huge challenges” facing our society as well as our planet. “If I were young, I'd be pretty cross with the older generation”, she said. Her own generation has “warmed the planet, crunched the credit and started several real and metaphysical wars.” The younger generation will have to work longer and pay higher taxes just to live in relative comfort.

There is not only “one society”, Chakrabarti continued. We live in a shrinking, interconnected and interdependent world where we identify with several communities at once – e.g., region, faith or profession. The challenges we face include migration and an ageing population, as well as climate change, and we need “universal values and ethical principles”, or what Chakrabarti calls “human rights.” There is a need for greater social and political justice, addressing inter-generational as well as international issues. Science and technology can help us deal with these challenges, but for them to work, the younger generation must be part of a new enlightenment, communicate better and be more confident concerning ethics, policy and law. “It's not enough to be clever”, she added. It's important to speak to people “across your specialisms.”

Before handing over to Professor Jones, Chakrabarti recalled a remark she once made on BBC Radio 4's *Question Time*, when she said “science is too important to be left to the scientists.” Although her words were challenged by one particular scientist, the implication was that we all have something to say – and a right to speak up.

Professor Jones began by saying his remarks would overlap to some extent with Chakrabarti's, suggesting that science was less important than many people (including scientists) think. After quoting Satan's words in Genesis, “Ye will be like gods, who know good and evil”, he then said that science was nothing to do with good and evil and that “the nature of science is absolutely neutral.”

Sometimes, however, science is perverted for ulterior motives. Sir Francis Galton helped to develop eugenics, but since the Nazis adopted these concepts to justify genocide, geneticists have been very careful how to describe their work in case it is abused in similar ways. Jones also quoted Darwin, who said that “ignorance more frequently begets confidence than does knowledge”, adding that this does not stop people reaching conclusions.

After discussing how genes are used to “explain” things (and also to provide an alibi for certain actions), Jones then explored his thoughts on education and the “shattering experience” of the 11-plus – the exam used to stream children entering secondary school.

Some of the questions were very tough, he explained, but this exam determined many people's lives. The universities of Oxford and Cambridge also continue to be highly selective, with the five top private schools sending more students to Oxbridge than the lowest-ranked 2,000 state schools combined. There is no evidence that we are born to fail or succeed, however, Jones then continued. Intelligence may be inherited like other traits, and there are intrinsic differences between us, but studies suggest that adopted children tend to have an IQ approaching their adoptive parents more than their birth parents, thus demonstrating that environment is critical. In fact, he said, improvements in intelligence can also be related to the extent of infectious diseases and the use of antibiotics. Genes are not the whole story...

Scientists are often willing to admit they are ignorant, said Jones, but politicians rarely are.

Kenneth Roy then invited questions and the first speaker spoke about feeling as angry as teenagers now feel today, and angry on behalf of her own children. Chakrabarti empathised and said that she often gets angry (e.g., about tuition fees) but believes it's important to channel that anger to change things. “In the end, it's all about *other people's* children”, she added.

The second speaker wondered about “two-speed” change in society, and Jones replied by saying that scientists argued about whether evolution was controlled by “jerks or creeps.” He also quoted Lenin who, when asked about the lasting effects of the French Revolution, replied it was “too early to tell.” Chakrabarti commented that revolution can be very bloody and produce bad results and that “gentle change” or evolution can work very well – for example, in her own lifetime, there has been gradual progress in support of gay rights.

Are long-term versus short-term aims the source of our problems? Jones said that technical progress can be very slow. In science, one exception is molecular biology, especially over the last 60 years, but Chakrabarti wondered if this was because we enabled the progress by funding specific research. Ending on an optimistic note, Chakrabarti quoted Martin Luther King who said “the arc of history bends towards justice.”

Major Challenges

The Young Academy members were then invited to identify the major challenges we face today and try to come up with solutions. Among the issues mentioned were energy, health, education and the need for an enterprise culture in Scotland, “the death of social democracy”, the importance of communication, “learned helplessness”, the need for more practical politics, religious conflict, inter-generational problems, the gap between the rich and poor, lack of trust in certain institutions and the need for greater accountability in the media.

Communication – “We need a common language”, the first speaker said. For example, physics and computer science can be impenetrable to non-technical people. “How do we talk to each other?” It was then suggested that as well as being able to communicate, we need to listen to each other – not just business to business or institution to institution, but also person to person. “Scientists have a translation failure.”

Energy – How do we set up a less harmful, more sustainable system?

Health – “We're living longer and living sicker.” Obesity, smoking, drugs and alcohol are still major problems.

Enterprise & opportunity – Is there too much short-term thinking? “We're not an entrepreneurial society.”

Politics – We need to be more positive and practical.

Religion – We face a lot of complex religious problems, e.g., sectarianism. We need more inter-faith engagement.

Poverty & inter-generational issues – There is a widening gap between rich and poor, and between young and old.

Ownership of knowledge – We need to collaborate more and make better use of knowledge.

Education – Assessment is still a big problem, but even though we may be angry about the rising cost of university courses, we should be more concerned about the thousands of young people who end up as NEETs (not in education, employment or training).

Lack of trust – There is a lack of trust in “experts” in areas such as climate change and health, so we have to communicate better.

Short term vs long term – We are very bad at foregoing short-term gains for long-term gains – much

like our attitudes to smoking and energy.
Trust & accountability – What we say and what we do are often in conflict. In science and health, we must be accountable. "I am terrified by some of the information I see on the web." Politicians are also not accountable enough when it comes to sharing information on policies. "Science is sometimes seen as witchcraft." We need to help people bombarded with information to filter out what really matters, and distinguish facts from non-facts. There is too much misinformation and deliberate misinformation.

Trigger happy? – The UK has too many stock responses to problems. Why do we still need to be on the UN Security Council?

The death of social democracy – Since the 1970s, the consequences of financialisation have made it very hard to address many issues. In the past, our concept of "social democracy" helped us to deal with our problems, but there is no mechanism now because we have "financialised" everything – we are no longer investing in concrete things but abstract financial creations.

"The biggest challenge is **learned helplessness**", one speaker added, referring to the observation that many people subject to inequalities become alienated and sometimes will not even accept any help (e.g., a new community centre) because they feel "that's not for people like us."

Solutions?

Kenneth Roy asked: **"**Is there a better **measure of progress** than GDP per capita – e.g. the happiness index?" He also focused on the **lack of trust** and the sense of **frustration** that so many people expressed. In response, Chakrabarti advised: "Get angry and get organised. Build a consensus on values. Articulate, then prioritise. Become a trusted brand."

Jones described many of the comments so far as "predictable", explaining that one of the faults of the left was to "complain, not achieve." He then advised the Young Academy to narrow its horizons and focus on a few issues, citing the RSPB as a good example of such an approach – and describing the green movement, in general, as a bad example because it lacked focus and achieved very little as a result. He also described how in visits to schools nationwide, Scottish students seemed less responsive – afraid to challenge and lacking confidence.

In the search for solutions, we have to take risks, but "there is a depressing **lack of tolerance** for getting things wrong", said one speaker. In addition, "voices are raised very quickly when something goes wrong." It is important to allow **dissent**.

To identify a **future agenda** for the Young Academy, it may be useful to "pick things across the political spectrum", one speaker suggested. For example, mental health and **well-being** are topics which can be expressed in terms which suit the left and right as well as liberals.

"What about the power of the **Internet**?" asked Roy. The Internet is not anything special in young people's lives, came the instant reply. It is ubiquitous, but any future activity must work both offline and online, taking account of the fact that there is still a **digital divide**.

Asked to respond to the issues raised so far, including the need for better communication when it comes to science, Chakrabarti said there was no need for micro detail, but **communication** in plain English was very important. Jones described the "complete **disconnect**" between scientists and those who report it, and the difficulties faced in trying to strike the right balance between opposing views, particularly for the BBC. There is also a disconnect between scientists and the general public, he added.

Roy then discussed the "**collapse of trust**" – e.g. in the police, the media and politicians – and asked if we are operating in a "**moral vacuum**" today. We focus too much on being *independent*, one speaker commented, rather than the need to be *interdependent*.

“We are good at communicating problems”, another voice added, “but not at solutions.” Maybe we should try to express problems differently – for example, instead of focusing on making profits from public transport, we should focus on the need to move people around.

Conclusions?

Roy then sought to wrap up the meeting by focusing on two or three issues – suggesting topics such as **dialogue**, **trust** and **community**. The mention of “community” provoked a strong response from one speaker who said he was “allergic to the word.” While others talked about the need for people to develop a sense of **identity**, the need to build community and trust, and find a **common languag**e, some were more concerned about “**empowerment**” and the relationship between the individual and the state, **inter-generational** issues, the gap between people with **knowledge** and those without.

“Every age has its **crisis**”, one speaker suggested. “We shouldn't try to be an organisation that tells people all the answers.”

“We should switch from talking about communication to **dialogue** – with whomever wants to engage. But first we should ask if we've something to say.”

The concept of “**multi-perspectivity**” then got an airing, as one speaker commented that “science and technology don't have all the answers.”

“What is the mindset of young people today? They **lack ambition** but they also have **great resources**.”

“We should focus on **innovation** and things **specific** to our age group.”

“We may propose a lot of different projects, but how do we **harness our abilities** and insights?”

“Realistically, maybe we should do things in **small groups**. We don't need to sign up to everything.”

One person said the group should “avoid developing a **corporate view**”, while another said it would not be possible to move forward without developing a clear corporate view. “How can we have a brand without **consensus**?” he added.

Chakrabarti then said she was not suggesting that the Young Academy should become a **campaigning** organisation, but should promote **debate** as well as **network** and **learn** from each other. “It's heartening you have some **core values** in common”, she added.

The final thoughts of the Academy focused on the need to do something **specific**, including **publishing, outreach and public engagement** – making sure that the humanities received as much attention as the science, and taking full advantage of their spectrum of skills. Should they deal with small tasks or concentrate on the big issues?

The last words came from Shami Chakrabarti, who said she had loved “eavesdropping” on the discussion, which she felt had been highly productive despite the fact no policy or mission had emerged from the inaugural meeting – “that is not the issue”, she added, urging the Academy to think in terms of **practical activities**.

The RSE Young Academy of Scotland

The RSE Young Academy of Scotland was launched in late 2011. It brings together some of the most able and innovative young academics, entrepreneurs, artists and professionals from across Scotland. The aim of the Young Academy is to stimulate creative ideas and collaborative working that will help address some of the key challenges facing Scotland and contribute to solving some of the global challenges of the 21st Century.

The Young Academy will:

Create a strong voice for younger researchers and professionals to address important issues both in their own specialist areas and in matters of more general concern - a voice that is helped to resonate in places where it might have influence.

Operate as a discussion forum that is primarily directed towards having a significant influence on circumstances and strategies that are important for them in the area within which they work.

More information can be found on the RSE's website:
http://www.rse.org.uk/794_The+RSE+Young+Academy+of+Scotland.html

Members of The RSE Young Academy of Scotland – 2011

Rosalind Allen
Sharon Ashbrook
Des Balmforth
Kirsty Blackstock
Rosalie Chadwick
James Chalmers
Paul Chapman
Iain Chirnside
Sarah Coulthurst
Ineke Moortel
Lisa DeBruine
Mirela Delibegovic
Iain Docherty
Edward Duncan
Nigel Eccles
Daniele Faccio
Karen Faulds
Ross Forgan
Aileen Fyfe
Jane Gotts
Alan Gow
Tom Greggs
Jeremy Hall
Faye Hammill
Giles Hammond
Gareth Harrison
Helen Hastie
Jennifer Hastie
Heather Haynes
Catherine Heymans
Asif Ishaq
Rob Jenkins
Elham Kashefi
Karen Lorimer
David Lusseau
Cait MacPhee
Graeme Malcolm
Alexander Marshall
Arlene McConnell
Neil McLennan
Andrew Mearns Spragg
Jeffrey Murer
Francisca Mutapi
Caroline Nichol
John Nicholls
Cian O'Driscoll
Chris O'Sullivan
Ian Overton
Gordon Pentland
Martyn Pickersgill
Craig Ramsay
Peter Reekie
Jane Reid
Sinéad Rhodes
Will Shu
Craig Smith
James Smith
Kenny Smith
Jane Stanley
Nicola Stanley-Wall
Christian Tams
Benjamin Tatler
Nicole Tausch
Job Thijssen
David Tonery
Jano Van Hemert
Cliff Williams
Jim Wilson

The Royal Society of Edinburgh

The Royal Society of Edinburgh (RSE) is Scotland's National Academy of Science & Letters. It is an independent body with charitable status. The Society organises conferences and lectures for the specialist and for the general public. It provides a forum for informed debate on issues of national and international importance.

Its multidisciplinary Fellowship of men and women of international standing provides independent, expert advice to key decision-making bodies, including Government and Parliaments. The Society's Research Awards programme annually awards well over £2 million to exceptionally talented young researchers to advance fundamental knowledge, and to develop potential entrepreneurs to commercialise their research and boost wealth generation. Among its many public benefit activities, the RSE is active in classrooms from the Borders to the Northern Isles, with a successful programme of lectures and hands-on workshops for primary and secondary school pupils. The Royal Society of Edinburgh, working as part of the UK and within a global context, is committed to the future of Scotland's social, economic and cultural well-being.

Acknowledgement

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The Royal Society of Edinburgh

Telephone/Textphone +44 (0) 131 240 5000
Fax +44 (0) 131 240 5024

e.mail info@royalsoced.org.uk
www.royalsoced.org.uk

22–26 George Street, Edinburgh EH2 2PQ

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RSE YOUNG ACADEMY OF SCOTLAND

THE ROYAL SOCIETY OF EDINBURGH