

Cafes and Cultures

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Abstract

Cafe Scientifique engages the sciences with local cultures. Whereas the sciences are pretty much the same the whole world over, cultures are enormously varied, and this is why Science Cafes take so many different forms. There is no universal formula for a Cafe Scientifique evening, and each Cafe has to engage with local behaviours, manners, beliefs and ways of thinking.

Historically, European Cafes have taken place in middle class areas, with an educated and informed audience. The Cafes have proved popular because the topics chosen have related to the personal, social, global experiences and anxieties of a large section of the audience. So the topics can be in Genetics, Neuroscience, Cosmology, Biology, Particle Physics, etc.

In Africa the topics discussed are practical and down to earth - Malaria, HIV, Water purification, GMO's, etc. The growth in African Cafes and the practical nature of the topics supports the idea that Science Cafes need not be limited to educated middle class communities. Indeed the application of Science Cafes to different cultures is a learning process - seeing how different sciences are critical to public engagement.

There are now over 700 Cafes round the world. The fact that Cafes have been done in very rural areas, as in Uruguay and Montana - in Parliament and prisons in Argentina - in

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conflict zones like Gaza - and on the streets in Sweden, shows that the culturally critical element is to find a respectful and relevant method of engaging with each community.

So there is no universal form of a Cafe Scientifique. they are developed by local groups within their own culture. That is why a network is more appropriate than a heirarchy of Cafes. Science Cafes learn from each other and relating science to your own culture is critical in modern life.

Introduction

In an article in 'NATURE'(1) on 'Science in Culture', Café Scientifique was described as a place *'where, for the price of a cup of coffee or a glass of wine, anyone can come to discuss the scientific ideas and developments which are changing our lives'* So what is important about coffee, alcohol, discussion and non-academic venues in relation to the importance of scientific facts and theories?

One answer appeared recently in 'SCIENCE',(2) in a review of books about science communication, 'The foundation of successful communication is listening to and respecting your audience.' The reviewer suggests that scientists should be aware of the wisdom of Nelson Mandela, who was initially vilified by the public. *'Scientists should learn from Mandela that to win people's minds you must first get them to listen, and people will listen only if they feel that they are respected.'*

Science communication was traditionally seen as the popularisation of science through magazines, books, lectures and television – one-way communication. But Café communication was started in the last decade of the twentieth century by Marc Sautet in France. He moved philosophy discussion out of universities and into Cafe Philosophique, where people met on a Sunday morning in a Café and decided what philosophic arguments they would discuss. These events became popular in France, but in Britain the subject was moved from Philosophy to Science, and Café Scientifique was inspired by Sautet's innovation. Science communication moved to a two-way process. There are now more than 700 Science Cafes round the world.

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How do you start a Café?

- Firstly find a café, bar or public venue with some space. Usually you are not charged if the event is on a Monday or Tuesday.
- Think of a topic which would attract an audience – either something controversial, recently in the news, or medical.
- Approach a speaker from a local university or hospital. They can usually be found on the university website.
- Find an audience via personal friends, emails and advertising in the café and public spaces.
- Once it starts often a scientist will talk for 20 minutes and then, after a short break, there are questions and discussion.

So a key element of Café Scientifique is mutual respect between scientists and the audience. How can you create that respect when the speaker, a scientist, normally knows more about the discussion topic than the audience? Perhaps it is because the scientist's experience and knowledge is focussed and narrow, whereas the audience contains wider experience and different forms of knowledge. The purpose of the talk given by the scientist is not just to teach the audience the scientist's discipline, but to provide sufficient information for the audience to respond with interesting questions leading to discussion.

How and where is mutual respect achieved, and what does it provide? In the academic world the agenda is formed by the curriculum and examinations. Most students feel that a lecture is just part of a journey towards exams, and the information flow is one way – from the lecturer to the student. However in a Café Scientifique there is a topic, but no further agenda. Discussion may go in any direction, depending on the audience. Furthermore the discussion promotes the idea that agreement is very unlikely on any topic and that science and technology can be addressed in many different ways. So, as well as the discussion commanding respect, it also encourages people to be more open minded about ideas and helps them to realise that science is accessible, interesting and open to dispute.

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The importance of coffee and wine is not just about stimulation and relaxation, but about enjoyment. People go to cafes to enjoy food, drink and conversation. Taking science into a café or bar is about engaging with people on their own terms. People can come and go as they please, listen and enjoy a drink, or ask questions and argue. The Café provides an open and level playing field for ideas and comments. This doesn't mean that every comment is equally relevant, but it does mean that the opportunity to speak provides the framework for intelligent and respectful discussion.

The discussion is the core of the event. Usually, a pause between the speaker and the discussion allows participants a comfort break, the chance to refresh their glasses, and most importantly the opportunity to reflect on what they have heard and develop a question or a contribution. The goal is for the discussion to be more than a question and answer session centred on the speaker. When a café takes off, it is because the participants are debating with each other, and contributing their own experiences or views.

The role of the moderator or facilitator is vital. They set the tone of the event, putting people at their ease, ensuring that the speaker is asked to explain any jargon or technical detail, and keeping the discussion flowing. If someone attempts to dominate the debate, or becomes offensive or inappropriate, then the moderator's role is to defuse the situation and move the conversation forward.

Context

The context in which SciCafes operate is changing rapidly. When the Café Scientifique started in the UK it was easy to get publicity because it was considered ridiculous to go into a Café and talk about science rather than just gossip with friends. At that time there was little discussion of science outside academia, and little reporting of science in the press.

But in the last decade science communication has mushroomed, and changed. Ten years ago it was about 'public understanding of science', now it is about 'public

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engagement with science'. It is now a hot topic among politicians, educators, academics, civil servants, scientists and democrats. Each group has its own interests.

- politicians want to be informed about public attitudes and fears,
- educators want to create more scientists,
- civil servants want to 'consult' the public in order to draw up more acceptable proposals,
- academic departments expand to initiate the cross discipline of science and media training,
- scientists realise their research grants are linked to public concerns,
- democratic groups want to change government policies on subjects like climate change.

Now there is nothing wrong with many of these aims. People always use a means to further their own ends, but this is not the public engaging with science, it is science trying to engage with the public. Academics, politicians and educators all say they want to 'listen' to the public, but they are only 'listening' to responses to their own questions. Everyone says that engagement is a two way thing, but the present fashion for engagement comes from science, politics and academia, rather than from the public.

Where does the Café Scientifique stand in the spectrum of public engagement? Here are some of the distinctive features of the Cafes

- They have moved discussion into the public arena. Now academics want to go public, not just the public wanting to be academic.
- There is no brief to defend science at all costs. This provides a free and open agenda, allowing people to ask awkward questions.
- There is face to face contact with scientists at a community level. But of course there is also the internet, which has enabled us to be international and is opening up many new possibilities.
- It is a network, not an organisation in the traditional sense, so it is bottom-up, not top down. Each Café is independent and has its own interests, depending on the local culture and community.

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So there is no narrow purpose - political, educational, scientific or whatever. The Science Cafes will help to bring science back into culture. Evenings are spent in a cultural examination of science, from which each member of the audience draws his or her own conclusions. Public discussion is an end in itself – one interesting and enjoyable aspect of cultural exchange. Public engagement will take many forms, but it is important that many of them start from society, with social innovation, rather than from outreach by traditional institutions.

Twenty five years ago ethics and science were considered two completely different disciplines, but now ethics is crucial to any assessment of a science project and what it will accomplish. In the same way, in twenty five years, ‘public engagement’ will be critical to scientific projects and Science Cafes are a critically important way of introducing engagement.

Promoting Change

So if the aim is just to promote discussion, how will this change anything at all? Many people think that talking is not taking action. However, a central issue for social scientists, concerned with the conditions necessary for modern democracies, is the emergence of voluntary associations of individuals, especially when they are formed outside the realms of both the political institutions of the state and the intimate ties of the family.

There is no higher purpose in SciCafes other than being stimulated to consider and talk about subjects relevant and important to peoples’ lives. But that produces a new community, based on a common interest. Also the breadth of subjects discussed, from genetics to cosmology, and the quality of information and discussion, often undermines what the audience are told to believe by the media, government, advertisers and other powerful institutions. This provides people with an independent base for thought and action. Informal discussion of science is popular because there is a social and cultural gap between science and popular culture. Informal dialogue is likely to expand in many

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different directions but its popularity and independence are important in this rapidly changing culture.

Building Bridges

‘Science and Society’ is a universal description of this area of activity, but there are many sciences and many different societies. The relationship between the sciences and the public is now becoming as complex as the relationship between the public and the Arts. Just as the Arts incorporate theatres, cinemas, exhibitions, galleries, festivals and performance, now the Sciences are displayed in Science centres, festivals, science weeks, outreach activities and modern technologies. Furthermore the targeted audiences include young children, family groups, teenagers, hard-to-teach adults, deprived communities, immigrants and retired people. Just as the Arts involve poetry, music, theatre, painting, sculpture, etc., Science Communication now involves debates, quizzes, demonstrations, popular songs and games, as well as Twittering, Facebook and YouTube. But if we are moving out of the traditional academic structures how do we relate them to Café Scientifique? While it is important to keep the Cafes independent, experience shows that it is often easy to build a bridge between formal institutions and informal Cafes. For instance

- Science Centres often provide a suitable venue because they have a café in the building. They also provide publicity for any events in their building.
- Universities often have courses on science communication, in which graduates are being taught to interact with the public. SciCafes can provide practical experience of this and so these courses often provide assistance to find speakers on different topics.
- Universities frequently have outreach programmes to the community, and the people who organise these events are often interested in starting SciCafes because it is part of their strategy and also provides them with direct experience.

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- Science Institutions are concerned with their public image, which often determines their funding, so that they are often keen to be seen to promote public dialogue and engagement.
- Many government departments are interested in science education, training teachers, etc. Often they have funds for specific public projects like adult learning, animal experimentation, synthetic biology etc.,
- Many cultural and artistic groups are now including science in their agendas, since human sciences are questioning the traditional views of art, philosophy, literature, etc. So Arts centres are often keen to adopt SciCafes.
- As for schools cafes, it is clear that science education is in crisis almost everywhere in the world, so that new ideas are widely acceptable. Approaching teachers, individual schools and education authorities is a fairly easy way to start Cafes in schools – although it is more difficult to keep them free from the hierarchy within the school.

So in many ways the Cafes can build bridges between the old world (traditional universities, teaching methods, remote experts) and the new world (informality, engagement, internet). A key element of Science Cafes is that they are very flexible – they can be used for education, controversy, training, comedy, medical information, ecological engagement, ethical arguments, historical analysis or the latest research.

Cafes and Cultures

Café Scientifique engages the sciences with local cultures. Whereas the sciences are pretty much the same the whole world over, cultures are enormously varied, and this is why Cafes can take so many different forms. There is no universal formula for a Cafe Scientifique evening, and each Café has to engage with local behaviours, manners, beliefs, and ways of thinking.

- In Japan some Cafes allow members of the audience to text questions and comments via their mobile phones to a screen. Why – because in some areas respect for older people is critical to a conversation, so that when the oldest

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person in the room has voiced an opinion it is rude to directly contradict it. However an impersonal, texted, opinion or question is accepted as a way of moving the discussion on.

- In France, with many different types of Café and centuries of egalitarian discussion, a number of main speakers represent differing views on a scientific subject, so that science is not seen as a single view. But the speakers only get two minutes to explain their position – so that the audience join in very quickly.
- In Uganda, Cafes in the local language take place in ‘Malwa Joints’, where the local ‘malwa’ brew is made in a very large pot and the people stand round it drinking through large straws. These started because someone approached the local elders and suggested that discussions about local issues were failing and that they should be restarted in the traditional mode – around a ‘malwa’ pot. The elders agreed and now local issues are HIV, malaria, water purification, etc.
- But many cultures have no alcohol. In Mumbai, India, the Cafe is ‘Chai and Why?’ (Tea and Why?), In Isfahan, Iran, coffee is the only drink, as in other Muslim Cafes.

So the Science Cafes must reflect local cultures, and often that is a considerable challenge. Historically, European Cafes have taken place in middle class areas, with an intelligent and informed audience. The Cafes have proved popular because the topics chosen have related to the personal, social, global experience and anxieties of this (large) section of the population. So topics in genetics (Who Am I?), neuroscience (How Do I Think?), medicine (Swineflu), cosmology (Where are We in the Universe?), particle physics (Hadron Collider), biology (Synthetic Forms of Life?) and mathematics (Infinity?) have all proved popular.

However once Cafes try to engage with more socially and economically deprived cultures problems start to emerge.

- Some of these are economic – transport problems, few cars;
- some educational – resistance to science and education, lack of questioning;

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- some social – fear of discussion, apathy about involvement, lack of interest in futures;
- some geographical – isolated country communities or deprived city areas;
- some religious – antagonism to evolution and cosmology;
- some linguistic – immigrant communities, refugees;
- some personal – suspicion of different groups or races;
- some technological – no computers, or just an interest in Facebook;
- some financial – any spare money spent on pleasures, not interests.

These problems make it difficult for governments, charities, churches and NGO's to operate successfully in deprived communities, and it is no easier for Science Cafes. However some Cafes have made considerable progress.

In Africa the topics discussed are practical and down to earth – ‘How to Live Longer with HIV’, ‘Malaria in Pregnancy’, ‘The Chemistry of Malwa’, ‘TB and the Community’. The growth in Africa Cafes and the practical nature of the topics gives support to the idea that Science Cafes need not be limited to educated middle class communities. Indeed the application of Science Cafes to different cultures is a learning process – not just learning about different cultures, but seeing how different sciences are critical to public engagement. The variety of sciences and their practical applications show that there is no obvious boundary to Cafes and social engagement. The fact that Cafes have been done in very rural areas like Uruguay, and also Montana, - in prison, and also in Parliament, in Argentina, - in conflict zones, like Gaza – with immigrant groups, in Britain – and on the street in Sweden, shows that the culturally critical element is to find a respectful and relevant method of engaging with each community.

So there is no universal form for Café Scientifique. They are developed by local groups within their own culture. That is why a network is more appropriate than a hierarchy of Cafes. Science Cafes will have their own priorities, their own organisational structure, their own limitations and their own opportunities. Science Cafes learn from each other.

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A key element to science cafes has been their worldwide expansion, already in over 40 countries and every continent. There is no other public engagement group as widespread, and the growth has occurred because the Cafes are a network, not an institution. Individuals and groups have initiated their own Cafes by hearing about them, reading about them or finding them on the internet. The flexible approach to the location and format of a Café allows individuals to be creative, and the practical experience of choosing subjects, finding speakers and listening to the audience is enjoyable and engaging. Since different cafes can be educational, controversial, practical or experimental and the organisers can be scientists, journalists, educators, university staff, artists or lay persons, the network of science cafes provides a unique international network which joins up the many different aspects of science and society. This international aspect is greatly strengthened by the internet, and this is one of the critical elements of the present project.

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