Why isn't sociology a science?

Some questions are rhetorical—pretending to enquire, while masking an answer hiding a prejudice. The title of this Editorial, however, is truly a question. Its author does not even pretend to know the answer—but it does raise issues of prejudice.

There is an opinion, which may be a prejudice, that sociology is not an accepted science. For example, it is not accepted by the most senior British society, the Royal Society of London, founded in 1665. Physiology and psychology of perception has been represented for a long time. As perception has beautiful suggestive phenomena, with empirical investigations testing hypotheses, and significant implications, this is entirely appropriate; but is sociology so very different?

We think of perception, and ourselves, as resulting from interaction of many millions of brain cells living in our heads, organised by principles we only partly understand. We also think of ourselves as interacting within a society with organising principles we hardly understand. So the question is: Why is studying behaviour of brain cells fully acceptable to science, though study of societies is scientifically suspect? Is this a problem of the questions or the methods of sociology? Or, conceivably, is it sociology's answers? This seems unlikely, unless they are patently silly or false, though as sociology overlaps with politics there may be something in this. The Dining Club of the Royal Society, from which the Society was born, precludes (rightly) politics as a topic for discussion. Yet the issues of sociology are clearly important and surely are intellectually interesting. Certainly they are not trivial: we need scientifically valid answers to life–death questions that affect everyone on the planet.

There are so many sick societies, one might hope that—like doctors—sociologists would suggest and try out empirical cures, while homing in on fundamental principles so that theories can be applied and tested. But this is not how sociology tends to be perceived. It seems to concentrate on people returning or not returning their supermarket trolleys, rather than asking why Ireland and Bosnia have unsocial diseases. Yet is this fair? New medical cures have been achieved from seemingly irrelevant observations and experiments. Much of the most respected physics and physiology grew from unpromising ideas and bizarre experiments and the science of chemistry, perhaps necessarily, grew from the mumbo jumbo of alchemy.

Have I been prejudiced, all these years, against sociology? Deciding to find out, I have been reading Anthony Giddens's well known introductory text, Sociology (1993). As Anthony Giddens is Professor of Sociology at Cambridge, 'my' University, I started with a favourable prejudice and am enjoying its 819 well-structured informative pages.

How did sociology start? One learns (p. 705) that it was called 'social physics' before Auguste Compte (1789–1857) coined the term sociology for, "the most significant and complex of all sciences". Influenced by Compte's writing Émile Durkheim

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(1) This has a sociological origin. According to Brewster's Dictionary of Phrase and Fable Mumbo Jumbo is: "A bogey or bug-bear in the Mandingo towns of Africa. As the Kaffirs have many wives, it not unfrequently happens that the house becomes quite unbearable. In such a case, either the husband or an agent dresses himself in disguise, and at dusk approaches the unruly house with a following, and makes the most hideous noise possible. When the women have been sufficiently scared, "Mumbo" seizes the chief offender, ties her to a tree, and scourges her with Mumbo's rod, amidst the derision of all present. Mumbo is not an idol, any more than the American Lynch, but is one disguised to punish unruly wives."
(1858–1917) found them too speculative and vague—failing to provide a scientific basis. Durkheim's famous first principle of sociology (p. 707) is: "study social facts as things!" Meaning that, "Social life can be analysed as rigorously as objects or events in nature". He believed that the rapid changes of industrialism bring major social difficulties linked to anomie, sense of purposelessness, lack of meaning. He claimed that social factors are revealed in statistics of suicide. Meaning was studied through semiotics originating from the Swiss linguist Ferdinand Saussure (1857–1913), who unearthed structures of language. This led the way to studies of social structures, such as fashions and rituals, developed in anthropology following the work of Lévi-Straus. Sociology seems to be closely connected with anthropology, and there are also connections here to individual intelligence and perception. The American sociologist George Herbert Mead stressed the importance of some things standing for other things or ideas, as symbols. Mead claimed that (p. 715), "language allows us to become self-conscious beings—aware of our own individuality, and the key element in this process is the symbol". This sociological account is the other side of the coin of functional brain cells conferring language and meaning.

Durkheim compared structures of societies with the interactive physiology of bodily organs (or brain modules), the life of a society depending on efficient functioning of its parts, with a general consensus. Severe loss of consensus is social disease.

Is this essentially less cogent than acknowledged sciences? No doubt it lacks the precisely formulated hypotheses and strong experimental bases of the more successful sciences; but here the official history of science may be misleading. It is surely unfortunate that history of science concentrates so heavily on successes. For every suggestive or useful discovery, there must have been many as-it-turned-out silly experiments and useless life-works. No doubt a Darwin or a Newton stands out from hundreds or even thousands of unremembered hopefuls, who only made seeing the light more difficult by clouding issues with irrelevancies and inappropriate ideas or prejudices. But how else could science work?

Among the more misleading ideas in psychology was the Gestalt notion that answers to problems are built-in minimal-energy states of brain fields. Silly, for this implies that answers to problems never before encountered exist in the structure of the brain—and so are at least potentially known prior to experience or experiment. This is a dangerously misleading interpretation of innateness, for the brute fact is that we have to tease out usefully-leading from mis-leading observations and ideas, without the help of any built-in compass pointing to truth. Innate knowledge is only available through Natural Selection, from (especially disastrous) ancestral experiments applying when the present is relevantly similar to the past. As societies grow ever further and very rapidly away from patterns of early human living, innate knowledge and behaviour must generally become less appropriate to social needs. Hence, of course, the importance, in a wide sense, of education, and the danger of stimulating innately attractive though now socially inappropriate instincts and behaviour, as in crude violence of TV programmes. Those who accept this, but hold that sociology is trivial or not socially responsible, are hoisted on their own petard—for, as Giddens makes clear, education and effects of TV are significant issues in sociology.

(2) Oddly, Giddens tells us (page 32) that Charles Darwin wrote On the Origin of Species after two voyages around the world on HMS Beagle. Biographers refer only to one voyage (7 December 1831–2 October 1836).

(3) Newton spent many years on alchemy, writing some 4 million (unpublished) words on what we see now as more magic than science.

(4) The petard, according to Brewster, was a: "thick iron engine, filled with gunpowder, and fastened to gates, barricades and so on to blow them up. The danger was lest the engineer who fired the petard should be blown up by the explosion."
We are very familiar with perceptual errors, or illusions, including sensory data 'prejudiced' by what 'should' be present. Illusory contours could be an example: unlikely gaps being filled in by likely though nonexistent objects or surfaces. Cognitive processes of perception are essentially biased by context and assumptions and rules—which can be investigated experimentally. Although it must be exceedingly hard to get adequate reliable data (and questionnaires are generally suspect), there are some cogent controlled experiments in sociology yielding important unexpected results, especially Stanley Milgram's frightening experiments on authority (Milgram 1973), for which he lost his academic job. Milgram found that people could quite easily become torturers—turning up the voltage of supposed electric shock on actors simulating pain. He found that wearing a uniform confers potentially terrifying power of authority. And it is reported that actors playing officers, others playing uncommissioned ranks, soon separate into superior and inferior classes—going to different bars in the evening—though they know they are all but actors in a play. Then the Hawthorne effect (not in the index) that workers respond to any change that indicates personal interest by the management is clearly important for assessing such matters as colours of a work place. Changing from blue to green may be as beneficial as changing from green to blue; so colour-claims and so on need careful experiments to justify. It is also said that typists are more irritated by distracting noise from behind dividing screens than from louder sounds of an open-plan environment. This is a matter of 'them' and 'us'. Surely this structures and destroys societies. So there are significant phenomena and concepts, but controlled experiments do seem to be disappointingly few. This is surprising when we think of the all-important factors of myth and opinion, and prejudice in human affairs.

Are attempts made to measure prejudgements (on which societies and perhaps almost all politics depend) and their effects? As most of accepted science depends on objective assessments and measurements, this might be welcomed and seen as evidence that sociology can truly be a science. Many years ago (in about 1965 at Cambridge) I designed an objective test for assessing prejudices; but, perhaps unfortunately, the idea was never carried out. At the risk of embarrassment, through someone pointing out that for sociologists this idea is as old as the hills, may I with diffidence present it here? (This is a rhetorical question!)

**Suggested method for objective assessments of opinions, or prejudices:**

1. Record a discussion on some chosen topic.
2. Write a transcription, which can be suitably edited or even be purely fictional.
3. Employ actors—of chosen genders, ages, races, etc—to reenact the discussion.
4. Switch the actors—so that different genders, ages, races, or whatever make the same points, in the same words.
5. Get selected audiences (or panels) to judge the points made, and how well they are made, according to specific criteria—such as logical cogency, range and accuracy of knowledge, and reasonableness of assumptions.
6. Compare these judgements across the different genders or ages or races, or any other selected variable.

As the same words are presented by switched genders or ages (or whatever), differences of assessment by the panel(s) should reveal their specific prejudices. Since the topics can be chosen, and so can be the kinds of members of the panels, prejudices for any topic by any group could be assessed.

It may turn out that certain prejudices are gender-related or age-related or profession-related—differently, by different genders or ages (or whatever). The information should become available for teasing out, from the complicated social web, all manner of prejudices and beliefs in different groups.
The intention thirty years ago was to try out this experiment, and indeed it was planned and set up; but other matters took precedence and it never happened. If it had, possibly *Perception* would have had a different editor, or even not have been born. In any case, I am quite pleased this experiment never took place; but would be delighted if someone with more appropriate skills and interests would give it a go. Could its results be useful, for analysing belief structures and biases of prejudice, perhaps for diagnosing social diseases of war and drugs, and kids not being interested in science?

It should be possible to calibrate judges. It might be useful for calibrating scientists—especially social scientists. Or am I revealing a prejudice? Whether this is a rhetorical question, the reader may decide. But first—perhaps the reader should be calibrated.

Richard Gregory

**References**

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Milgram S, 1973 *Obedience to Authority: An Experimental View* (New York: Harper Row)