

Public Views on Scientific Evidence

Study conducted by Ipsos MORI
for Sense About Science.
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Introduction

This summary report presents the findings of a survey on public views of scientific evidence. The research was conducted by Ipsos MORI on behalf of Sense About Science.

Methodology

The questions were placed on Ipsos MORI's Omnibus. A nationally representative quota sample of 2,024 adults aged 16 and over was interviewed throughout Great Britain in 198 constituency-based sampling points. Interviews were conducted face-to-face in respondents' homes, using CAPI (Computer Assisted Personal Interviewing) between 13 and 18 March 2008. The data have been weighted by gender, age, region (Government Office Region), and social class, to reflect the known population profile of Great Britain¹.

Reporting

The figures quoted in the charts are percentages, and the base size from which the percentage is derived is indicated at the foot of the chart.

Please note that percentages for sub-samples or groups need to differ by a certain number of percentage points for the difference to be statistically significant. The number will depend on the size of the sub-group sample and the percentage finding itself. Further explanation and an example are given in the appendix entitled "Statistical Reliability".

When an asterisk (*) appears in charts, this indicates a percentage of less than half, but greater than zero. Where percentages do not add up to 100% this can be due to a variety of factors – such as the exclusion of 'Don't know' or 'Other' responses, multiple responses or computer rounding.

Publication of Data

Our standard Terms and Conditions apply to this, as to all studies we carry out. Compliance with the Market Research Society Code of Conduct and our clearing is necessary for any copy or data for publication, web-siting or press releases which contain any data derived from Ipsos MORI research. This is to protect our client's reputation and integrity as much as our own. We recognise that it is in no-one's best interests to have survey findings published which could be misinterpreted or could appear to be inaccurately, or misleadingly, presented.

¹ The computer tables give an unweighted column and row of data, to enable comparison with the final, weighted results.

Summary of Findings

The vast majority of British adults are able to name at least one activity, features of people, place or image associated with scientific evidence without being prompted.

Just over half are able to name activities they associate with scientific evidence. The most common phrase associated with 'scientific evidence' is 'crime and forensic evidence', which is used by a quarter.

When shown a list of words and phrases, half say that scientific evidence is described by 'research' and 'experiments or tests'.

A quarter of the public associate scientific evidence with being 'reliable', while a relatively low number identify scientific evidence as being 'confusing' or 'contradictory', or 'misleading'. Overall, the general public are more likely to choose positive associations when asked about scientific evidence.

When asked to choose in which areas of life they believe scientific evidence is important, around three quarters mention solving crimes. Scientific evidence is also seen as important by over half of the public in relation to health and healthcare and legal cases.

Spontaneous Associations with Scientific Evidence

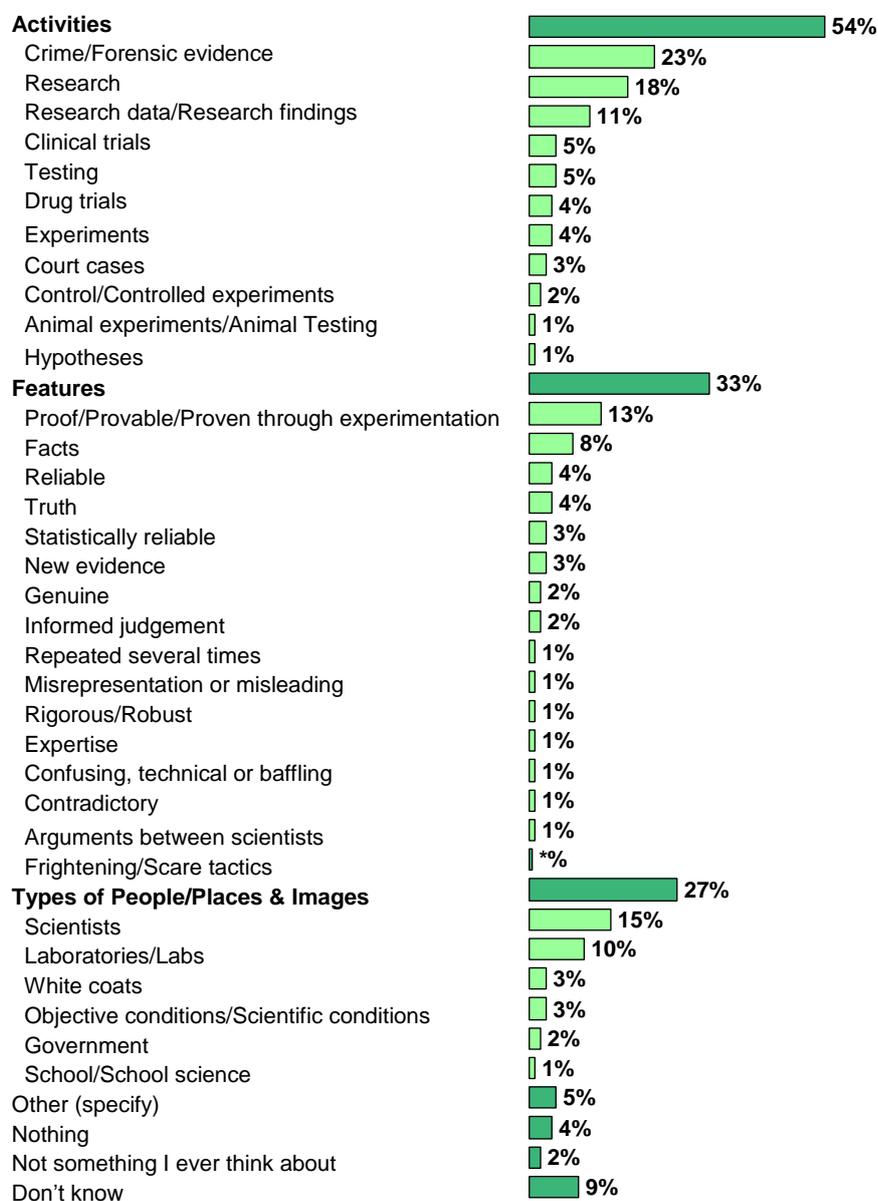
Overall, British adults are able to spontaneously name a variety of activities, features and types of people, places and images which they associate with the phrase 'scientific evidence'. Nine in ten people (87%) mentioned at least one association with the phrase, and a third (36%) mentioned two or three different associations.

Just over half (54%) mention **activities** (such as crime and forensic evidence, court cases or experiments) associated with scientific evidence. A third (33%) associate scientific evidence with **features** (such as facts, truth or contradictory) and a quarter (27%) say particular **types of people, place or images** (such as scientists, laboratories or white coats).

Ipsos MORI

Sense about Science

Q When I say 'scientific evidence' what comes to mind?



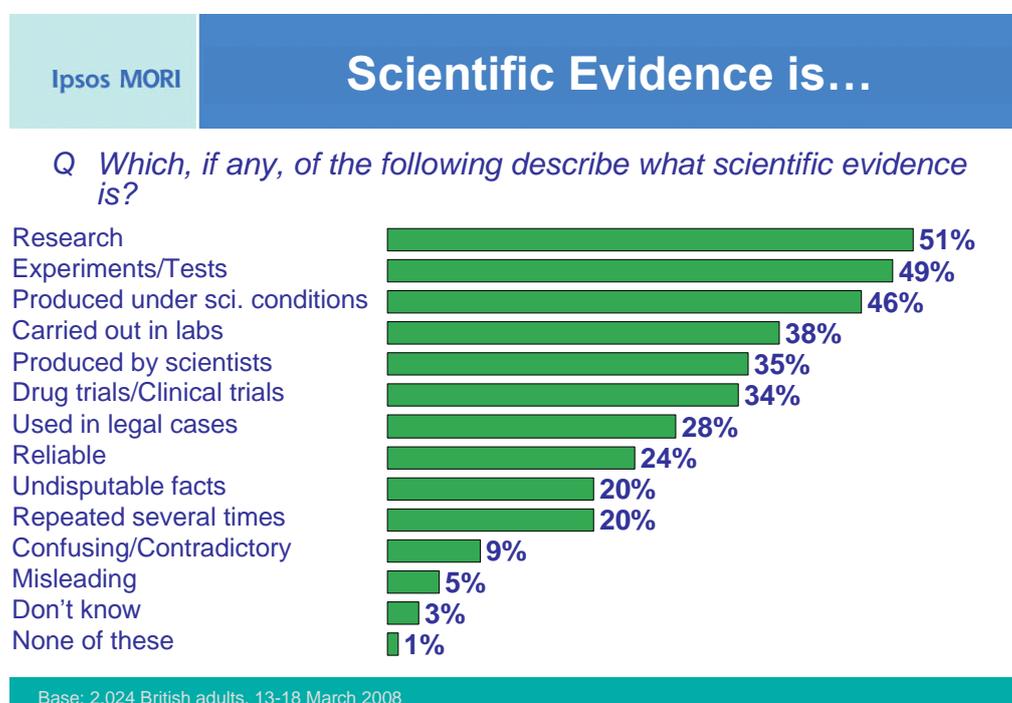
Base: 2,024 British adults, 13 – 18 March 2008

Within these groups, 'crime and forensic evidence' is the most commonly cited association with the phrase 'scientific evidence' – mentioned by a quarter of the public (23%). One in seven people (15%) say that 'scientists' come to mind and a slightly lower proportion mention that scientific evidence is associated with 'proof, provable or being proven through experimentation' (13%).

- The lower social classes are more likely to say they ‘don’t know’ when asked for spontaneous associations with scientific evidence, with 19% of DEs giving a ‘don’t know’ answer compared with a total of 9%. Those in higher social classes are more likely to have mentioned at least one association with the phrase – 96% of ABs, compared with 74% among DEs.
- Those with higher levels of formal qualifications are more likely to associate scientific evidence with ‘research’ and ‘research data and findings’. A third of people with A levels (34%) or educated to degree level name (36%) mention research, compared with 21% of people with GCSEs equivalent qualifications and 16% of those with no formal qualifications.
- People of Black or Minority Ethnic origin are more likely to think of scientific evidence as ‘genuine’ or ‘reliable’, with 11% citing one or both of the above responses compared with 5% among White people.

Prompted Associations with Scientific Evidence

Half of British adults (51%) say ‘research’ when asked to choose from a list of words which may describe scientific evidence. Around a half say scientific evidence can be described by ‘experiments or tests’ (49%) or by being ‘scientific or produced under scientific conditions’ (46%).



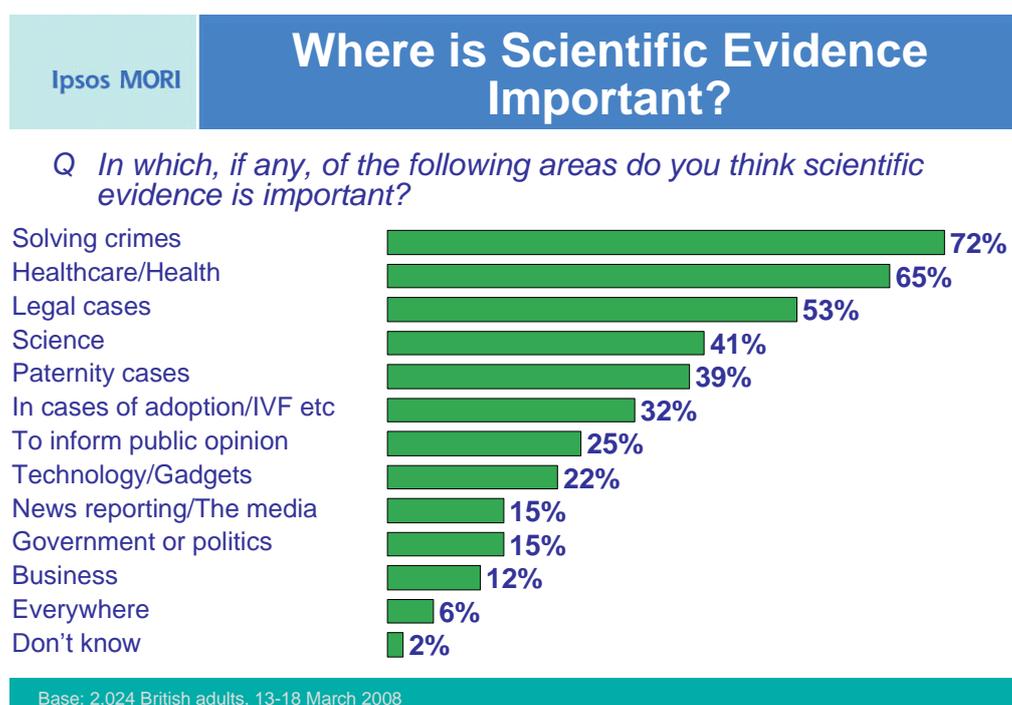
A quarter of people (24%) describe scientific research as ‘reliable’, and one in five (20%) say it can be described by the phrase ‘undisputable facts’. This is compared with 9% who say it is ‘confusing or contradictory’ and just 5% who say it is ‘misleading’. Therefore, on the whole respondents are more likely to choose

positive phrases to describe what scientific evidence is, than more negative connotations.

- Those in social classes A or B are more likely to describe scientific evidence as ‘scientific or produced under scientific conditions’ than those of a lower social class (61% of ABs mention this compared with 38% of C2s, and 34% of DEs).
- Those with a longstanding illness or disability are more likely to describe scientific evidence as ‘drug or clinical trials’, with 42% choosing this compared with 34% overall.
- White respondents are significantly more likely than those from a Black or Minority Ethnic background to describe scientific evidence as: ‘Scientific/Produced under scientific conditions’ (48% compared with 31%) or ‘Undisputable facts’ (21% compared with 10%). In contrast, white respondents are also more likely to associate scientific evidence with being ‘misleading’ (6% of White respondents saying this compared with only 1% of BME respondents).

Importance of Scientific Evidence in Everyday Life

Overall, the public believes that scientific evidence has an important role in a broad range of areas. Scientific evidence is thought to be most important within justice and health arenas, as seven in ten people believe it is important in solving crimes (72%), two-thirds think it is important in health and healthcare (65%) and a half mention legal cases (53%).



Only 15% feel scientific evidence is important in either government or politics or the media. Six per cent say that scientific evidence is important everywhere.

- Men are more likely than women to see scientific evidence as important for technology and gadgets (26% of men compared with 18% of women) and for business (15% and 9% respectively).
- Older people are more likely to think scientific evidence is important in several areas than younger people, including: solving crimes (80% of 65-74s think this is important, compared with 68% of 16-24s); to inform public opinion (34% of 55-64s compared with 15% of 16-24s); and news reporting (20% of 55-64s compared with 12% of 16-24s).
- A higher proportion of those in social classes A and B think scientific evidence is important in a number of areas than those in lower social classes (D and E) – Healthcare/Health (74% of ABs compared with 56% of DEs); To inform public opinion (36% compared with 17%); and News reporting/The media (24% of ABs compared with 10% of DEs).

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Appendices

Statistical Reliability

The sampling tolerances that apply to the percentage results in this report are given in the table below. This table shows the possible variation that might be anticipated because a sample, rather than the entire population, was interviewed. As indicated, sampling tolerances vary with the size of the sample and the size of the percentage results.

For example, on a question where 50% of the people in a sample of c.2,000 respond with a particular answer, the chances are 95 in 100 that this result would not vary by more than 2 percentage points, plus or minus, from a complete coverage of the entire population using the same procedures (i.e. between 48% and 52%).

Approximate sampling tolerances applicable to percentages at or near these levels			
	10% or 90%	30% or 70%	50%
	±	±	±
Size of sample on which survey result is based			
c.1,000	2	3	4
c.2,000	2	2	3

Source: Ipsos MORI

Tolerances are also involved in the comparison of results from different parts of the sample. A difference, in other words, must be of at least a certain size to be considered statistically significant. The following table is a guide to the sampling tolerances applicable to comparisons.

Differences required for significant at or near these percentages			
	10% or 90%	30% or 70%	50%
Social class – ABs vs. DEs (450 vs. 556)	4	6	7
Gender – Men vs. Women (981 vs. 1,043)	3	4	5

Source: Ipsos MORI

Definition of Social Grades

- A** Professionals such as doctors, surgeons, solicitors or dentists; chartered people like architects; fully qualified people with a large degree of responsibility such as senior editors, senior civil servants, town clerks, senior business executives and managers, and high ranking grades of the Services.

- B** People with very responsible jobs such as university lecturers, hospital matrons, heads of local government departments, middle management in business, qualified scientists, bank managers, police inspectors, and upper grades of the Services.

- C1** All others doing non-manual jobs; nurses, technicians, pharmacists, salesmen, publicans, people in clerical positions, police sergeants/constables, and middle ranks of the Services.

- C2** Skilled manual workers/craftsmen who have served apprenticeships; foremen, manual workers with special qualifications such as long distance lorry drivers, security officers, and lower grades of Services.

- D** Semi-skilled and unskilled manual workers, including labourers and mates of occupations in the C2 grade and people serving apprenticeships; machine minders, farm labourers, bus and railway conductors, laboratory assistants, postmen, door-to-door and van salesmen.

- E** Those on lowest levels of subsistence including pensioners, casual workers, and others with minimum levels of income.

Topline Findings

Public Perceptions of Scientific Evidence Sense about Science

Topline Findings
25 March 2008

- The Ipsos MORI Social Research Institute interviewed a representative quota sample of 2,024 adults aged 16+ across Great Britain
- Interviews were carried out face-to-face, in home, using CAPI, as part of the Ipsos MORI Public Affairs Monitor
- Fieldwork was conducted between 13 – 18 March 2008
- Results are weighted to the known population profile of GB
- An asterisk (*) denotes a finding of less than 0.5%, but greater than zero
- Where figures do not add up to 100, this is due to multiple coding or computer rounding
- Research was carried out for Sense about Science

ASK ALL

Q1. **When I say ‘scientific evidence’ what comes to mind?** DO NOT PROMPT. MULTICODE OK

<i>Types of People/Places & Images</i>	%
	27
Scientists	15
Laboratories/Labs	10
White coats	3
Objective conditions/Scientific conditions	3
Government	2
School/School science	1
Activities	54
Crime/Forensic evidence	23
Research	18
Research data/Research findings	11
Testing	5
Clinical trials	5
Experiments	4
Drug trials	4
Court cases	3
Control/Controlled experiments	2
Animal experiments/Animal Testing	1
Hypotheses	1
Features	33
Proof/Provable/Proven through	13

experimentation	
Facts	8
Truth	4
Reliable	4
Statistically reliable	3
New evidence	3
Genuine	2
Informed judgement	2
Confusing, technical or baffling	1
Contradictory	1
Expertise	1
Misrepresentation or misleading	1
Repeated several times	1
Rigorous/Robust	1
Arguments between scientists	1
Frightening/Scare tactics	*
Other	5
BSE	*
Other (specify)	5
Not something I ever think about	-
Nothing	4
Refused	2
Don't know	9

Q2. SHOWCARD On this card is a list of words and phrases. Which, if any, of the following describe what scientific evidence is? Please read out the letter or letters that apply. You may choose as many or as few as you like. MULTICODE OK

	%
Research	51
Experiments/Tests	49
Scientific/Produced under scientific conditions	46
Carried out in laboratories	38
Produced by scientists	35
Drug trials/Clinical trials	34
Used in legal cases	28
Reliable	24
Repeated several times	20
Undisputable facts	20
Confusing/Contradictory	9
Misleading	5
Other (specify)	*
None of these	1
Don't know	3

Q3 SHOWCARD And looking at this card, in which, if any, of the following areas do you think scientific evidence is important? Please read out the letter or letters that apply. You may choose as many or as few as you like. MULTICODE OK

	%
Solving crimes	72
Healthcare/Health	65
Legal cases	53
Science	41
Paternity cases	39
In cases of adoption, donor banks, IVF etc.	32
To inform public opinion	25
Technology/Gadgets	22
Government or Politics	15
News reporting/Newspapers/TV/ Radio/The media	15
Business	12
Other (specify)	*
Everywhere	6
Nowhere	*
Don't know	2