

Public Perceptions of Risk, Science and Governance

Main findings of a British survey of five risk cases

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Introduction

This report presents the main findings of a detailed empirical study of public attitudes towards science, risk and forms of governance. The centrepiece is a major quantitative survey that has been conducted with ESRC support, and is linked to the Programme on Understanding Risk, a major new research programme (2001-2005) supported by the Leverhulme Trust (see *Acknowledgement*). The quantitative survey covered five core issues selected by the Programme on Understanding Risk for detailed investigation, namely:

- Climate Change
- Radiation from Mobile Phones
- Radioactive Waste
- Genetically Modified Food
- Genetic Testing

These cases have been chosen as they are all prominent within UK society today, and have complementary as well as contrasting facets. Each issue contains, among others, the following elements:

- i. They all relate to scientific knowledge, public trust in science and scientific procedures, interrelationships with business, civil society and government, and matters of democratic choice, freewill and tolerance of collective decisions.
- ii. They all test governmental competence as well as scientific authority, especially when scientific interpretations clash with wider values such as free choice, democratic accountability and the role of business and civil society in changing patterns of governance.
- iii. They are all themes that are covered by various surveys of public opinion, but where a richer set of contextually referenced and comparative data is lacking.

The study is designed to provide theoretical progress and integration in the field of risk perception and representation, facilitating advances in our theoretical understanding of public framings and attitudes towards science and risk issues. It is also intended to provide scientists and policy makers with an understanding of how the public views and characterises science and scientific procedures in settings where risk and policy interact. This report gives an overview of the preliminary findings of the study. At a later stage, more detailed analyses will be conducted. Moreover, the survey will be triangulated with a series of parallel qualitative studies that have been conducted in September 2002, allowing both richer theoretical insights and methodological learning about mixed method designs (see also Poortinga, Bickerstaff, Langford, Niewöhner & Pidgeon, in press).

The rest of the report is divided into three main sections. In the first section the procedure of the study will be outlined, and will include a description of the characteristics of the survey sample, together with the design of the questionnaire. In the second section, the descriptive results of the survey will be presented. This largely follows the original layout of the questionnaire (see *APPENDIX A*). The report will be concluded with a summary of findings.

The Survey

Procedure and Respondents

Data for this study were collected between 6 July and 31 July 2002. A quantitative survey was administered in Britain (England, Scotland, and Wales) by the market research company MORI. A national quota sample of 1547 people aged 15 years and older was interviewed face-to-face in their own homes. The interviews were carried out using fully trained and supervised market research interviewers and took on average about thirty minutes to complete. The total sample comprised of five separate quota samples of about 300 respondents, each of which was given a different version of the questionnaire covering one of the five risk cases (see Table 1). The five quota samples were run in Enumeration Districts (EDs) or constituencies that were randomly selected with a probability proportional to the size of the population.¹ Interviewers approached selected addresses within these EDs until they reached the quotas for gender, age and work status. The quotas were reflective of the actual profile in each ED. A maximum of one interview per address was conducted.

Table 1 shows the characteristics of the total survey sample and of the five separate sub samples. Given that the samples were controlled by quotas, the final demographic profile is close to that of the British population. However, the data have been weighed to ensure that the samples are fully representative for the national population in terms of age, sex, social class and region². As the weighing only applies to the overall sample, the data will only be weighed when presenting the descriptive results of the general section of the questionnaire. When the data is weighed, this will be mentioned.

¹ By way of information, EDs or enumeration districts are the smallest building blocks of the census (The census is a count of all people and households in the UK and is normally taken every ten years). EDs make up wards, which in turn make up constituencies. An ED averages about 150-200 households, with the range of households in an ED being 80-500.

² British population: Gender: Male 48.8%, Female, 51.2%; Age: 14-34 34.5%, 35-44 17.7%, 45-54 16.2%, 55+ 31.5%; Work Status: Working full-time 44.6%. Region: London 12.5%, Scotland 8.9%, North-East 4.5%, North-West 10%, Merseyside 1.9%, Yorkshire and Humberside 8.7%, East Midlands 7.3%, West Midlands 9.2%, Wales 5.1%, South-West 8.6%, Eastern 9.4%, South-East 14%.

The Questionnaire

The questionnaire used for the interviews was specifically designed to get comparative data on the five risk issues (i.e., Climate Change, Radiation from Mobile Phones, Radioactive Waste, GM Food and Genetic Testing) on a wide range of risk-related themes, while avoiding difficulties that often accompany lengthy questionnaires, such as respondent fatigue, which may lead to oversimplistic or stereotyped responding (e.g. box-ticking). The questionnaire was subdivided into three main sections (see Figure 1). The first *general section* was about general issues, and was common to all 1547 respondents. This section consisted of questions on cultural values, worldview, science in society, and on the importance of various personal and social issues to put the five risk cases into context. The second *risk specific section* presented the respondents with a set of *standardised* questions on only one of the five risk issues listed above. Each of the five separate quota samples was given one of the five risk versions. Questions in this section were aimed at measuring perceived risk characteristics, attitudes to risk regulation, social influence, trust, concern and acceptability of the five risk cases. The questionnaire was concluded with a section in which respondents were asked to provide *background information*, and was again common to all 1547 respondents. This final section not only had the usual socio-demographics such as gender, age, income and level of education, but also a range of questions on social and political exclusion. This section also contained (miscellaneous) questions on which papers the respondents read, their political affiliation, and how they would describe the area where they live most of the time.

Table 1. Characteristics of the survey samples

Characteristic		Sample					Total (N= 1547)
		CC (N=321)	MP (N=319)	RW (N=306)	GM (N=296)	GT (N=305)	
Gender	Male	46.7	45.1	49.0	44.9	48.2	46.8
	Female	52.3	54.9	50.3	55.1	51.5	52.8
Age	15-24	14.3	11.3	18.0	15.5	11.8	13.8
	25-34	14.3	13.5	15.0	18.6	15.7	15.4
	35-44	22.1	18.8	18.0	16.9	21.3	19.5
	45-54	11.8	18.5	18.6	16.6	15.7	16.2
	55-64	15.6	17.9	15.3	12.5	15.4	15.4
	65 and older	21.2	19.4	14.7	22.0	19.7	19.7
Class	AB	17.4	22.5	22.5	18.9	23.3	20.9
	C1	30.5	32.3	30.1	32.1	33.1	31.6
	C2	19.9	19.1	23.2	13.5	14.1	18.0
	DE	31.1	25.0	23.6	34.8	28.6	28.6
Income ^{a)}	Low	19.5	12.3	15.8	18.5	20.6	17.4
	Average	23.2	25.2	22.0	25.3	22.1	23.7
	High	12.9	26.2	25.6	18.8	27.1	22.0
	Don't know/ Refused	43.6	36.0	36.8	36.8	29.8	36.7
Level of Education	None	30.8	29.0	28.8	33.2	25.7	29.5
	GCSE	21.4	14.0	22.5	19.6	19.7	19.4
	Vocational/ NVQ	11.7	6.5	8.6	8.4	8.0	8.6
	A level	9.4	15.6	9.9	12.2	13.3	12.1
	Bachelor degree	10.7	17.9	14.6	14.3	17.7	15.0
	Postgraduate	4.2	3.9	3.3	3.5	3.7	3.7
	Other/ Don't know	11.7	13.0	12.3	8.7	12.0	11.6
Marital Status	Married	45.2	51.1	51.0	46.6	50.5	48.9
	Cohabiting	7.5	8.5	7.5	8.8	6.2	7.7
	Single	25.9	20.7	24.8	24.3	23.3	23.8
	Widowed	11.2	7.8	8.8	10.1	7.2	9.0
	Divorced	7.5	6.6	4.2	8.1	9.5	7.2
	Separated	2.2	2.5	1.6	2.0	1.3	1.9
Employment Status	Full time	38.6	41.1	42.5	42.5	36.4	40.6
	Part time	11.2	14.4	11.8	8.1	15.4	12.2
	Unemployed	5.9	6.6	7.5	6.4	5.0	6.3
	Homemaker	10.0	4.4	8.8	6.1	8.5	7.6
	Student	5.0	4.7	4.9	6.4	5.9	5.4
	Other	29.3	28.8	24.5	30.5	28.8	27.6
Ethnic Background	White	91.0	94.7	94.7	96.6	91.2	93.6
	Black	1.8	2.8	0.3	1.3	0.6	1.4
	Asian	5.6	0.6	3.6	1.4	5.9	3.4
	Other	1.6	1.9	1.4	0.7	2.3	1.6

Source: UEA/MORI Risk Survey 2002. Note: CC: Climate Change; MP: Radiation from Mobile Phones; RW: Radioactive Waste; GM: GM Food; GT: Genetic Testing; a) Low: <£11,500 gross per annum, Average: £11,500 to £30,000, High: ≥ £30,000;

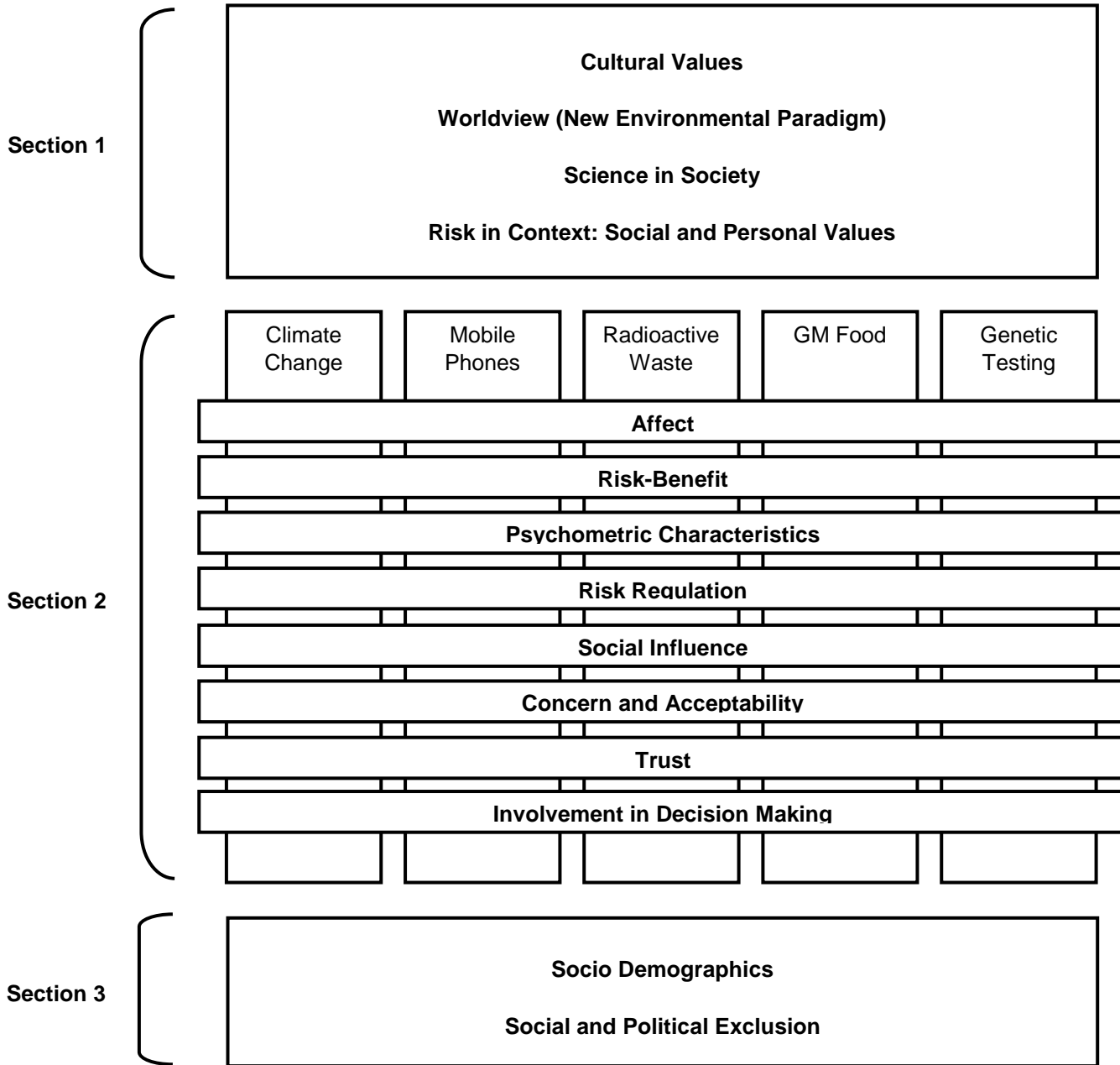


Figure 1. Schematic layout of the questionnaire

Main Findings

General Section

Cultural Values

The cultural values section of the questionnaire was inspired by the Zwick Milieu Scale (Zwick, 1998; Zwick & Renn, 2002). Using a large number of qualitative interviews, Zwick (1998) developed a typology of value orientations, which he used in a recent large-scale German risk perception survey (Zwick & Renn, 2002).

Table 2. Cultural value items

	Mean	SD
1. To me, personal fulfilment is all about being successful	3.18	1.11
2. It is important to me to preserve my customs and heritage	3.76	0.95
3. Sometimes I would like to withdraw from society	2.85	1.25
4. Economic growth is threatening the world	3.38	1.03
5. In my work, I strive to be the best	3.84	0.97
6. I sometimes feel pessimistic about society today	3.72	0.98
7. Those who are disciplined and hard-working are wasting their lives	2.13	1.05
8. British culture is important to me	3.77	0.98
9. It is important to me to be in a respected position in society	3.47	1.02
10. Religion should play a bigger role in society	2.81	1.20
11. I don't believe voting makes much of a difference	3.04	1.28
12. In the Western world, there is too much consumption of goods	3.81	0.92
13. Modern society creates more problems than it can solve	3.72	0.96
14. It is important to me to have a sense of achievement	4.11	0.77
15. Society has little to offer me	2.55	1.08
16. Radical changes are needed to achieve a better society	3.75	0.97
17. Risk-takers are generally more successful	3.46	0.96
18. Tradition is important to me	3.71	0.99
19. The government is not interested in the views of people like me	3.52	1.15

Source: UEA/MORI Risk Survey 2002; Person Weighed Data Set (N= 1547); The scale ranged from 1: "totally disagree" to 5: "totally agree"; SD=Standard Deviation.

Based on a secondary analysis of the data and a pilot study, the scales were adapted to the British context. Nineteen items were selected, after a large number of additional items were generated, with the specific aim to measure four value dimensions (Table 2). Two cultural value dimensions were aimed at measuring people's perception of society. That is, whether it is important to maintain the status quo and to preserve society's customs and heritage (Traditional Values) or whether it should change in order to get a better society (Cultural Criticism). Moreover, two cultural value dimensions were aimed at measuring people's views of their own position in society. That is, whether it is important to have a respected position in society (Achievement) or whether society has little to offer (Disengagement). A more detailed description of the development of the cultural value scales will be presented elsewhere.

Respondents were asked to indicate on a 5-point scale to what extent they agreed with the statements shown in Table 2. A principal component analysis (PCA) with Varimax rotation was conducted in order to condense the 19 statements into a smaller number of dimensions.³ The PCA yielded a five-factor solution, which accounted for 50.8% of the original variance.

³ A principal components analysis (PCA) is a statistical technique that on the basis of correlations between variables examines whether these can be described by a limited number of factors or components. Variables that are highly correlated with one another, but are largely unrelated to other (sets of) variables, are combined into a factor. A Varimax rotation rearranges the variables in such a way that the original variables load high on only one of the factors and low on the other factors. This generally improves the interpretability of the factors.

Table 3. Factor loadings after Varimax rotation.

	Factor				
	1	2	3	4	5
1. To me, personal fulfilment is all about being successful	.11	-.10	-.04	.65	.45
2. It is important to me to preserve my customs and heritage	.78	.08	.06	.20	.04
3. Sometimes I would like to withdraw from society	.10	.44	.36	.02	.14
4. Economic growth is threatening the world	.03	.69	-.00	.09	.28
5. In my work, I strive to be the best	.09	.06	.04	.68	-.08
6. I sometimes feel pessimistic about society today	.09	.36	.49	.08	-.15
7. Those who are disciplined and hard-working are wasting their lives	-.07	.14	.09	-.10	.67
8. British culture is important to me	.73	-.02	.14	.06	-.14
9. It is important to me to be in a respected position in society	.39	-.10	-.18	.52	.22
10. Religion should play a bigger role in society	.53	.12	-.36	.04	.26
11. I don't believe voting makes much of a difference	.06	-.02	.57	-.01	.36
12. In the Western world, there is too much consumption of goods	.02	.70	-.11	-.03	-.16
13. Modern society creates more problems than it can solve	.12	.59	.27	.01	.13
14. It is important to me to have a sense of achievement	.11	.11	-.04	.69	-.30
15. Society has little to offer me	-.02	.22	.49	.11	.52
16. Radical changes are needed to achieve a better society	.08	.46	.34	.23	.05
17. Risk-takers are generally more successful	-.02	.12	.24	.40	.03
18. Tradition is important to me	.81	.05	.09	.05	-.08
19. The government is not interested in the views of people like me	.06	.06	.75	-.01	.04
Eigenvalue	2.32	2.00	1.97	1.93	1.46
Explained Variance	12.2	10.5	10.3	10.1	7.67
Average agreement	3.55	3.69	3.22	3.62	2.60
Cronbach's α	.69	.61	.58	.58	.38

Source: UEA/MORI Risk Survey 2002 (N= 1547); The scale of the original items ranged from 1: "totally disagree" to 5: "totally agree"; Factor loadings higher than .40 are in bold; Factor interpretations: 1) Traditional Values; 2) Cultural Criticism; 3) Disengagement; 4) Achievement.

Table 3 shows the factor loadings after Varimax rotation of the original items on the components. It appeared that the solution fitted the four dimensions surprisingly well. As expected, all four *Traditional Values* statements loaded high on the first component. This first component was labelled similarly, and explained 12.2% of the variance of the original variables. The second component comprised of all *Cultural Criticism* statements, and also included the statement "Sometimes I would like to withdraw from society". This factor accounted for 10.5% of the variance of the original items. The third dimension seems to reflect best whether people feel that society has little to offer them, and is therefore labelled *Disengagement*. This factor explained 10.3% of the variance of the original items. However, some statements that were expected to load high on this single Disengagement component loaded on the second Cultural Criticism component as well. The fourth component, which explained 10.1% of the original variance, is mainly built up of statements that were developed to measure the cultural value dimension *Achievement*, and was labelled likewise. The fifth component, which accounted for 7.7% of the original variance, is not used in further analyses, as this component is not clearly interpretable. It also appeared that the reliability of this component was quite low (Cronbach's $\alpha = .38$), indicating that the items loading high on this component are not internally consistent. In other words, these items do not measure the same underlying construct. The reliabilities of the first four components were not very high, but

acceptable (Cronbach's $\alpha = .69, .61, .58, \text{ and } .58$, respectively). The reliabilities could not be improved by excluding items.

Scores on each value scale were determined by calculating the average agreement on the variables with high factor loadings. As the scores were averaged, individual scores on the resulting scales had the same 5-point scale as the original items. Table 3 shows that people agreed most with the items on the Cultural Criticism value scale, followed by the items on the Achievement and the Traditional Values scale. People agreed the least with the statements on the Disengagement value scale.

Science in Society

The importance of public understanding of science can perhaps best be described by quoting the 1985 Royal Society report on public understanding of science (the Bodmer report). In this report it is argued that “Science and technology permeate our everyday lives”, and therefore “an understanding of science is important for individual citizens, to participate in a democratic society”. Considering that many risks involve or emerge from scientific developments, an understanding of science may be an essential part of public understanding of these risks. After a review of previous surveys of public attitudes towards science (e.g. OST, 2000; Corrado, 2001; House of Lords Committee on Science and Technology, 2000; European Commission, 2001; Worcester, 2001; MORI, 2002), thirteen items were selected that centred around whether or not science is seen to produce benefits for society (*scientific optimism*) –which includes trust in science, the extent to which science is seen as being too influenced by commercial interests (*independence of science*), to what extent science is seen to be out of control (*controllability of science*), and, finally, whether or not people should have influence over the type of scientific research that is done (*public influence on science*). Respondents were asked to indicate to what extent they agreed with the thirteen science in society statements (see Table 4). The answers were given on a 5-point scale, ranging from 1: “totally disagree” to 5: “totally agree”.

Table 4. Statements on Science in Society

	Percentage Agree	Percentage Disagree	Neutral or Don't Know
Science makes a good contribution to society	0.6	2.1	14.8
We need science to make further progress in knowledge	0.2	2.7	8.7
The independence of scientists is often put at risk by the interest of their funders	0.8	4.9	27.0
Scientists should listen more to what ordinary people think	1.7	9.5	19.1

Source: Risk Survey 2002, Weighed Data Set (N= 1547).

Table 4 shows that most people have positive views on science. A majority of people strongly agree or tend to agree with the statements “On the whole, science will make our lives easier” (72.0%), “Science makes a good contribution to society” (80.6%), “We need science to make more progress in knowledge” (85.8%), and “We need scientists in today’s society (89.4%), whereas only 8.2%, 2.7%, 2.9%, and 1.8% disagreed with these statements, respectively. Likewise, only 12.3% of the respondents agreed with the statement “Science does more harm than good”. A majority of 53.8% disagreed with the latter statement. Compared to the above statements, a relatively high percentage of people (39.4%) agreed with the statement “We put too much trust in science”, whereas 28.8% disagreed. A high percentage of people could be found in the middle, i.e. about thirty percent neither agreed nor disagreed with the latter two statements. So, although they appreciate the positive contribution of science to society, most people feel scientific developments should not be trusted blindly, which can be interpreted that people show a degree of “critical trust” towards science.

In accordance with the above, it appeared that, although being positive about science, people seem to have reservations about its independence. A majority agreed with the statements “The independence of scientists is often put at risk by the interest of their funders”, and “The funding of science is becoming too commercialised” (59.7% and 54.2% respectively). Just over a half of the respondents indicated that they neither agreed nor disagreed with these statements (27.0% and 29.8% respectively). Only a small number disagreed that the independence of scientists is often put at risk by the interest of their funders and that the funding of science is becoming too commercialised (5.7% and 9.9% respectively).

Table 5. Factor loadings after Varimax rotation.

	Factor		
	1	2	3
1. On the whole, science will make our lives easier	.68	-.21	.06
2. Science makes a good contribution to society	.77	-.07	.01
3. Science does more harm than good	-.57	.19	.32
5. We need science to make further progress in knowledge	.73	.21	-.02
6. We need scientists in today's society	.75	.09	.04
7. The independence of scientists is often put at risk by the interest of their funders	.10	.76	-.00
8. The funding of science is becoming too commercialised	.02	.72	.11
9. Scientists often try new things without thinking about the consequences	-.25	.55	.32
11. There is so much conflicting information about science, that it is difficult to know what to believe	-.06	.68	.07
12. I would like more influence over the type of scientific research that is done	.12	.11	.81
13. Scientists should listen more to what ordinary people think	-.10	.11	.82
Eigenvalue	2.56	2.03	1.56
Explained Variance	23.3	18.5	14.2
Average agreement	3.98	3.64	3.54
Cronbach's α	.74	.65	.59

Source: UEA/MORI Risk Survey 2002 (N= 1547); The scale ranged from 1: “totally disagree” to 5: “totally agree”; Factor loadings higher than 0.40 are in bold; Factor interpretations: 1) Scientific optimism; 2) Independence of science; 3) Public control over science.

People’s responses to the statements about the controllability of science produced somewhat conflicting results. Although a large proportion of the people thought that “Scientists often try new things without thinking about the consequences” (51.4%), and that “There is so much conflicting information about science, that it is difficult to know what to believe” (68.9%), a large proportion people disagreed with the statement “Science seems to be out of control” (42.3%).

Respondents are clear about public influence on science. A majority of people (66.7%) think that scientists should listen more to what ordinary people think. Moreover, although a large proportion is undecided (34.2%), most (44.4%) agreed with the statement “I would like more influence over the type of scientific research that is done”.

The analysis examined whether people’s perceptions of science could be described by a number of underlying dimensions by conducting a principal component analysis with Varimax rotation (see Table 5). As the items “we put too much trust in science” and “Science seems to be out of control” were ambiguous, i.e. they loaded high on all three factors, they were omitted from the final analysis. It was expected that the PCA would result in a dimension structure that would closely fit the subdivision, as described above. Although this was not completely the case, the results of the PCA are clearly interpretable. The original 11 items on science in society could be

described by three components. The first component largely covered the items that were designed to measure *Scientific Optimism*, and was labelled likewise. The second factor covered the items on the independence of science, as well as the items “Scientists often try new things without thinking about the consequences” and “There is so much conflicting information about science, that it is difficult to know what to believe”, which were included to measure the controllability of science. This component is called *Independence of Science*. The third factor, which is labelled *Public Control over Science*, included the items “I would like more influence over the type of scientific research that is done” and “Scientists should listen more to what ordinary people think”.

Scores on each dimension were constructed by averaging the mean scores of the variables showing factor loadings higher than 0.40 on that factor. The resulting factors had the same 5-point scale as the original items. Table 4 shows that scientific optimism is (still) high. The average agreement on the six items that contributed most to this factor is 3.98 (on a scale that could range from 1: “totally disagree” to 5: “totally agree”). The average agreement with the four items that loaded the highest on the Independence of Science dimension was slightly lower, but still well above the scale midpoint (3.64), indicating that, on average, people think that scientists are at risk of losing their independence. The average agreement was the lowest with the Public Control over Science items (3.54). However, the latter was still above the midpoint value of 3: “Neither agree nor disagree”, reflecting that people favour having more control over the type of scientific research that is done. The reliabilities of the three scales were moderate, but satisfactory (Cronbach’s α is .74, .65, and .59 respectively).

New Environmental Paradigm (NEP).

For measuring general environmental concern, the revised New Environmental Paradigm Scale (NEP) was used (Dunlap and Van Liere, 1978; Dunlap, Van Liere, Mertig & Jones, 2000). The New Environmental Paradigm Scale was developed to distinguish between a (technological) worldview that can be characterised by a belief in abundance, progress and faith in science and technology on the one hand, and a (ecological) worldview that is based on the idea that the environment is a delicate system which easily can be disturbed by human activities, among which are included developments in science and technology, (e.g. Dunlap & Van Liere, 1978; Cotgrove, 1982; cf. Buss, Craik & Dake 1986; Poortinga, Steg & Vlek, in press).

Table 6. The New Environmental Paradigm Scale

	1	2	3	4	5	Mean (SD)
1. We are approaching the limit of the number of people the earth can support	2.6	13.6	19.8	39.4	20.1	3.64 (1.05)
2. Humans have the right to modify the natural environment to suit their needs	10.1	29.8	23.4	29.6	4.0	2.87 (1.09)
3. When humans interfere with nature it often produces disastrous consequences	1.0	5.0	18.8	44.2	28.4	3.97 (0.88)
4. Human ingenuity will ensure that we keep the earth liveable	3.1	15.8	25.8	44.5	6.6	3.37 (0.95)
5. Humans are severely abusing the environment	0.6	4.5	13.2	46.2	33.4	4.10 (0.84)
6. The earth has plenty of natural resources if we just learn how to develop them	2.3	7.8	10.9	50.9	25.6	3.92 (0.95)
7. Plants and animals have the same rights as humans to exist	2.2	9.0	15.2	41.3	30.4	3.90 (1.01)
8. Nature is strong enough to cope with the impact of modern industrial nations	16.5	39.2	20.0	17.8	3.3	2.51 (1.08)
9. Despite man's intelligence and creativity, humans are still subject to the laws of nature	0.3	1.9	15.6	54.0	25.5	4.05 (0.73)
10. The so-called "ecological crisis" facing humankind has been greatly exaggerated	8.6	32.3	28.3	21.1	3.7	2.78 (1.02)
11. The earth has only limited room and resources	0.7	6.6	13.3	51.5	25.4	3.96 (0.86)
12. Humans were meant to rule over the rest of nature	19.8	31.8	24.1	17.0	4.1	2.52 (1.12)
13. The balance of nature is very delicate and easily upset	0.5	3.2	11.7	50.6	30.6	4.11 (0.78)
14. Humans will eventually be able to control nature	23.6	34.2	18.4	17.6	2.4	2.39 (1.12)
15. If there is no change in the world, we will soon experience a major environmental crisis	1.0	6.5	18.2	43.3	27.7	3.94 (0.91)

Source: UEA/MORI Risk Survey 2002; Person Weighed Data Set (N= 1547); The scale ranged from 1: "totally disagree" to 5: "totally agree"; Percentages sum to 100 when the category "Don't know" is included; SD=Standard Deviation.

NEP has been used extensively in the field of environmental behaviour (e.g. Stern, Dietz & Guagnano., 1995; Schultz & Zelezny, 1999; Poortinga *et al.*, in press), and is taken to reflect people's views about the vulnerability of the environment to human interference. In further analyses (not reported here), we will examine whether the NEP scale can also be applied to the five risk cases. People were asked to respond to what extent they agreed with 15 statements (see Table 6). The answers could be given on a 5-point scale, ranging from 1: "totally disagree" to 5: "totally agree". Respondents' scores on the 15 items were averaged, after inverting items 2, 4, 6, 8, 10, 12, and 14. The respondents' average score was taken as a measure for environmental concern, ranging from 1: "low environmental concern" to 5: "high environmental concern". The scale's mean was

somewhat above the midpoint value (3.58, SD=.44), and had a normal distribution (skewness=.22; kurtosis=.10). The reliability of the scale was good (Cronbach's $\alpha = .74$). The above together with the nature of the questions indicates that the NEP is a good scale for measuring general environmental concern.

Personal and Social Values.

Risks issues do not emerge in a vacuum. They surface in a society that already has to deal with numerous other issues, with which the risk issues have to “compete” for attention. To put the five risk cases into a wider context, respondents were asked to indicate the importance value of eleven *Personal* (P) and eleven *Social* (S) issues (see Table 7). All answers could be given on a 5-point scale, ranging from 1: “not at all important”, to 5: “very important”. To compare the importance of the specific risks to the personal and social values, respondents in each of the sub samples were asked to indicate the importance of the risk case of the version of their questionnaire on the same 5-point scale. Accordingly, the results relating to the five risk cases (see entries in capitals in Table 7) are based on the sub samples instead of on the complete sample.

The most important issue was Health, with 96.7% of the respondents saying this is (very)important to themselves. This was followed by Law and Order (95.1%), Partner and Family (94.9%), and Personal Safety (95.1%). Other issues that were important to more than ninety percent of the respondents were Being Independent (92.5%), Education (91.7%), Privacy (91.2%), Social Relations/Friends (91.0%), Having a Comfortable Life (90.7%), and Personal Finance (90.1%). These issues were closely followed by Environmental Protection (87.9%), and Terrorism (84.3%). The least important issue was Religion, and was the only issue that was found important by only a minority (37.5%). A small majority of respondents considered Population Growth an important issue (57.3%). In the middle region the following issues could be found: The Economy (79.6%), Animal Welfare (76.4%), Excitement/Fun (75.5%), World Poverty (74.4%), Human Rights (73.5%), and Work (73.2%).

Although it could be argued that the scale used did not distinguish very well between the issues, as most people said that most issues were (very) important to them, Table 7 does reveal some interesting (relative) differences in importance. Most personal issues (P) can be found in the upper half of the table, while social issues (S) are mainly found in the lower regions.

Table 7 also shows the importance of the five risk cases, presented in capital letters. Conspicuously, the risk cases were reported to be less important than most of the other personal and social issues. Whereas Radioactive Waste could be found in the middle regions of the table, the other four risk cases were in the lower regions. Only religion was thought to be less important than GM Food, Radiation from Mobile Phones and Genetic Testing. Radioactive Waste (76.1%), Climate Change (66.3%), and Genetic Testing (53.8%) were important to a majority of people. Radiation from Mobile Phones (43.0%), and Genetically Modified Food (40.6%) were considered important to a minority of people.

Table 7. Risk in Context: The importance of various personal (P) and social (S) issues (%)

	1	2	3	4	5	Mean	SD
Your health (P)	0.2	0.3	1.9	10.3	86.4	4.84	0.47
Partner and family (P)	0.5	0.6	3.7	9.8	85.1	4.79	0.58
Law and order (S)	0.3	0.5	3.9	18.9	76.2	4.71	0.59
Personal safety (P)	0.1	0.2	4.4	20.5	74.6	4.70	0.57
Education (S)	0.8	1.3	5.2	16.1	75.6	4.66	0.71
Being independent (P)	0.4	0.4	5.7	23.1	69.4	4.62	0.65
Your privacy (P)	0.4	0.7	7.6	23.5	67.7	4.58	0.69
Having a comfortable life (P)	0.4	0.7	7.1	31.1	59.6	4.50	0.70
Personal finance (P)	0.5	1.0	8.1	33.1	57.0	4.46	0.73
Social relations/Friends (P)	0.4	0.6	7.5	37.5	53.5	4.44	0.70
Environmental protection (S)	0.8	1.1	9.5	31.5	56.4	4.43	0.77
Terrorism (S)	1.3	2.2	11.3	24.2	60.1	4.41	0.87
RADIOACTIVE WASTE	1.6	4.9	16.7	22.5	53.6	4.22	1.00

The economy (S)	1.9	2.8	14.4	33.6	46.0	4.21	0.92
Animal welfare (S)	2.5	3.5	16.7	30.2	46.2	4.15	0.99
Excitement/Fun (P)	1.5	3.5	18.2	35.1	40.4	4.11	0.93
World poverty (S)	2.5	3.9	18.6	34.6	39.8	4.06	0.98
Tackling human rights (S)	2.2	3.6	19.3	37.4	36.1	4.03	0.95
Work (P)	7.7	3.0	14.2	31.4	41.8	3.99	1.18
CLIMATE CHANGE	4.4	6.2	21.2	35.5	30.8	3.84	1.08
Population growth (S)	3.7	5.5	31.9	31.8	25.5	3.71	1.03
GENETIC TESTING	5.6	9.2	27.5	27.2	26.6	3.62	1.15
RADIATION FROM MOBILE PHONES	9.1	7.5	36.4	24.5	19.4	3.39	1.17
GM FOOD	10.1	12.2	33.4	20.3	20.3	3.29	1.23
Religion (P)	18.3	11.0	32.9	20.1	17.4	3.07	1.32

Source: UEA/MORI Risk Survey 2002; Person Weighed Data Set (N= 1547) for social and personal values (entries in lower case); sample sizes for the individual risk cases (entries in upper case) were: climate change (321), radiation from mobile phones (319), radioactive waste (306), GM food (296), and genetic testing (305). The scale ranged from 1="Not at all important", to 5="Very important"; Percentages sum to 100 when the category "Don't know" is included; SD=Standard Deviation.

Interestingly, there is a high negative correlation between the average importance ratings and the standard deviations ($r=-0.95$, $p<.001$). That is, there was less variation in the responses for the issues that were most important and more variation in the importance ratings for the less important issues. This means that, whereas the issues at the top of Table 7 were important to most people, the issues at the bottom of the list were important to only a subset of people.

Interest in the Risk Cases.

An important driver for people’s responses to risk is their interest and willingness to engage in (public) debates on these issues. People were asked how interested they are in the issues of Climate Change, Radiation from Mobile Phones, Radioactive Waste, GM Food, and Genetic Testing (Figure 2).⁴ The scores could vary from 1: “not at all interested”, to 4: “very interested”. Figure 2 shows that the risk cases that people found the least interesting were GM Food and Radiation from Mobile Phones, with respectively 39.9% and 40.3% of the respondents saying that they were not at all or not very interested in these issues. For Genetic Testing, Climate Change and Radioactive Waste this was only the case for 17.8%, 23.0% and 28.5%, respectively. In contrast, most people were very interested in Genetic Testing (34.7%) and Radioactive Waste (33.1%).

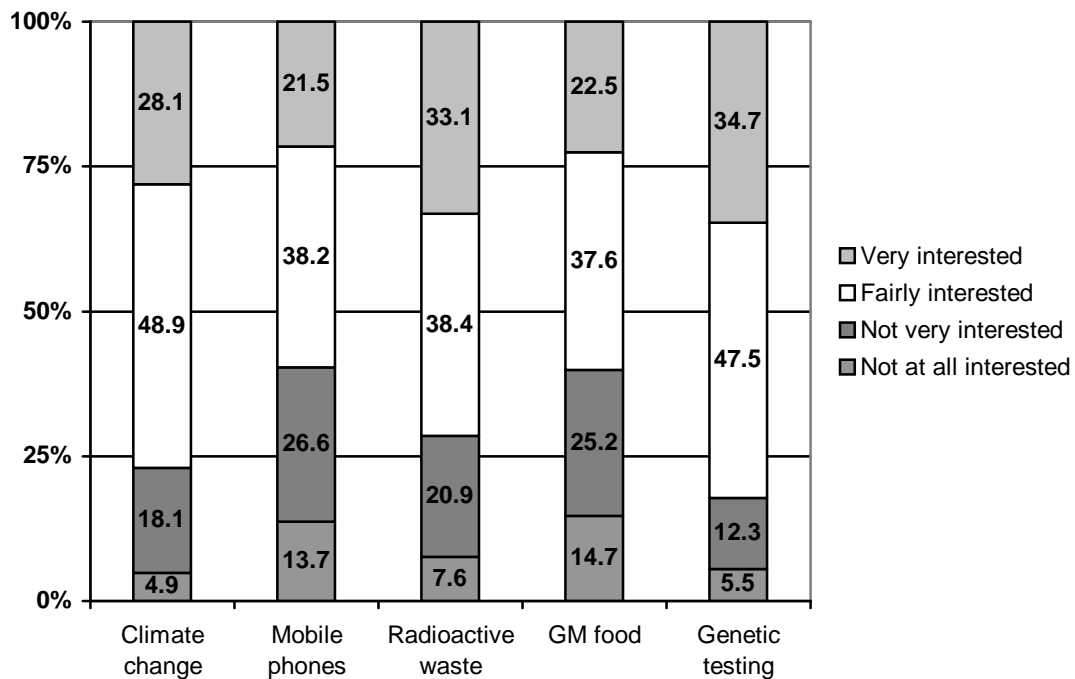


Figure 2.

Interest in the five risk cases (Person weighed data set, N= 1547).

⁴ The category “Don’t know” is not shown in Figure 2. The responses in this category for the risk issues are: Climate Change 0.5%, Mobile Phones 3.1%, Radioactive Waste 2.8%, GM Food 1.7%, and Genetic Testing 1.7%

General Evaluation of the 5 Risk Cases

Affect has been a topic that has been largely neglected in risk perception research (Loewenstein *et al.*, 2001), although recently it has been shown that affect may play an important role in people's responses to risks (Slovic, 2000; Rundmo, 2002). That is, affect may function as a filter influencing the way information is processed (Petty, Gleicher & Baker, 1991). The valence of people's affect may then determine whether people will focus on the positive or negative aspects of an issue. To assess people's general (affective) evaluation of the five risk cases, they were asked how they would describe their feelings about Climate Change, Radiation from Mobile Phones, Radioactive Waste, GM Food, and Genetic Testing on the whole (Table 8). The response categories varied from 1: "very bad thing", to 5: "very good thing", with 3: "neither good nor bad" as the scale midpoint.

Table 8. Responses to the question "how would you describe your feeling about the following issues" (%).

	Very bad	Fairly bad	Neither good nor bad	Fairly good	Very good	Don't know
Climate Change	21.1	38.0	25.5	9.6	1.5	4.1
Mobile Phones	23.9	37.9	26.3	3.8	1.0	7.0
Radioactive Waste	46.2	29.2	12.6	4.3	2.0	4.9
GM Food	18.7	25.4	35.2	13.3	2.1	5.0
Genetic Testing	5.6	11.4	22.7	37.1	19.1	3.7

Source: UEA/MORI Risk Survey 2002; Person Weighed Data Set (N= 1547).

Table 8 shows that people evaluated Genetic Testing quite differently from the other risk cases. Whereas for Radiation from Mobile Phones (4.8%), Radioactive Waste (6.3%), Climate Change (11.1%), and GM Food (15.4%) only a small number of people have fairly or very bad feelings about these issues, this applied to a majority for Genetic Testing (56.2%). The opposite applied to the proportion of people having fairly or very good feelings: a majority people had negative feelings about Radioactive Waste (75.4%), Radiation from Mobile Phones (61.8%), and somewhat less about GM Food (44.1%), but only 17% about Genetic Testing. Note that, except for Radioactive Waste (12.6%), between a quarter and one third of the responses could be found in the midpoint category "neither good nor bad", indicating that many people are indifferent to, or haven't yet made up their mind about GM Food (35.2%), Radiation from Mobile Phones (26.3%), Climate Change (25.5%), and Genetic Testing (22.7%), respectively.

Risk Specific Section

The main purpose of this risk specific section is to compare the five risk issues on various risk-relevant topics. As discussed earlier, the total survey sample consisted of five separate sub samples, each covering one of the risk cases in greater detail. The respondents were presented with a set of standardised questions in order to enable comparisons between the cases. So, as opposed to the former section, people only answered questions on one risk case. Differences between the risk cases were examined by conducting Univariate and Multivariate Analyses of Variance (ANOVAs and MANOVAs).⁵ Tukey's test was used to see which specific means differed.⁶

Affective Evaluation

Images

To investigate what kinds of associations (or images) emerge when people think about one of the five risk cases, we adopted a method described in Slovic (2000). Respondents were asked to think about the risk case of their version of the questionnaire, and then to report the *first three things* that came to their mind. Secondly, they were asked to indicate whether the things that came to their mind were “good”, “bad”, “neither good nor bad”, or whether they did not know. These results will be reported elsewhere.

Affect

Three questions asked directly whether people felt ambivalent (“I have mixed feelings about..”), indifferent (“I am not that bothered about”), or whether people thought “too much fuss is made about” the relevant five risk case (see Table 9). Answers to these three questions were given on a scale from 1: “totally disagree” to 5: “totally agree”. There was a significant overall difference in ambivalence between the five risk cases ($F(4,1414)=3.08$, $p<.05$), although this was relatively weak as Tukey's test showed that there were no differences between the means of specific risk cases. The means for all five issues were above the scale midpoint, indicating some ambivalence for all issues. Significant differences between the five risk cases were also found for indifference ($F(4, 1414)=19.17$, $p<.001$). More people indicated that they were “not that bothered” about GM Food, Genetic Testing, and Radiation from Mobile Phones compared to Climate Change and Radioactive Waste. However, it has to be noted that all the means were below the scale midpoint, indicating that many people did *not* feel indifferent about the risk cases. The same applied for people's agreement with the statement “too much fuss is made about” the risk cases. On average, agreement with this statement was low. There were some differences in the means for the five risk cases ($F(4,1414)=15.73$, $p<.001$): more people thought that too much fuss was made about Radiation from Mobile Phones, GM Food and Genetic Testing, than did about Radioactive Waste. Climate Change took a middle position.

⁵ Analysis of Variance is used to compare the means of two or more groups or categories (in this case the five risk cases). It is based on a comparison of two estimates of variance: differences between groups (or categories) and differences within each group. The bigger the first estimate is compared to the second, the more likely it is that the groups differ. The difference between a Univariate and Multivariate Analysis of Variance is that the former deals with one dependent variable and the later with two or more. A more elaborate description of this statistical technique can be found in Tabachnick and Fidell (1996) and Stevens (1992)

⁶ If the independent variable has more than two categories, the overall test is ambiguous. That is, it is not clear which specific groups differ from one another. A post-hoc analysis (such as Tukey's test) can determine which means differ by making pairwise comparisons.

Table 9. Affect

	Climate Change	Mobile Phones	Rad. Waste	GM Food	Genetic Testing	<i>p</i> ⁷
I have mixed feelings about	3.31 (1.12)	3.50 (0.97)	3.32 (1.14)	3.49 (1.19)	3.51 (1.06)	<.05
I am not that bothered about	2.36a (1.18)	2.90b (1.22)	2.16a (1.03)	2.76b (1.28)	2.67b (1.15)	<.001
Too much fuss is made about	2.51b (1.15)	2.88c (1.13)	2.22a (1.00)	2.75bc (1.28)	2.79c (1.14)	<.001

Source: UEA/MORI Risk Survey 2002. The scales ranged from 1: “totally disagree” to 5: “totally agree”; Standard deviations are given in brackets. Means with different subscripts are significantly different from each other. Means with different subscripts are significantly different from each other.

Perceptions of Risks and Benefits

The importance of perceived risks and benefits is a recurring theme in the risk literature. In many cases, risky activities or technologies also have distinct benefits. It is generally assumed that perceptions of risks and benefits are major driver of people’s responses to a specific activity or technology (see e.g. Slovic, 2000). Some studies have reported a negative relationship between perceived risks and perceived benefits (e.g. Fischhoff *et al.*, 1978; McDaniels *et al.*, 1997), which may reflect a general (affective) evaluation of a hazard (see e.g. Slovic, 2000). In the present study, respondents were asked to assess the risks to British society as a whole as well as the risks to themselves for one of five risk cases. Likewise, they were asked to assess the benefits of the same case for British society as well as the benefits for themselves.⁸ Except for the version of the questionnaire that deals with Genetic Testing, people were also asked to assess the risks to the environment. Scores on all items could vary from 1: “very low” to 7: “very high”, with 4: “some” as the middle (see Table 10). It appeared that people perceived the five risk issues differently on risks and benefits. As can be seen in Table 10, people substantially differed in their perceptions of the benefits for society across the risk cases ($F(4, 1404)=128.47, p<.001$). Whereas the benefits of *using* Mobile Phones and of Genetic Testing for British society were seen as relatively high, the benefits of Radioactive Waste for British society were very low. GM Food and Climate Change took a middle position. A similar pattern emerges when people were asked to indicate the benefits for themselves ($F(4, 1390)=69.81, p<.001$). Also for themselves, the benefits of *using* Mobile Phones and of Genetic Testing could be found above the scale midpoint. On average, people indicated that Radioactive Waste held the lowest benefits for themselves. Again, Climate Change and GM Food could be found in the middle.⁹ The risks to British society as a whole ($F(4, 1409)=25.20, p<.001$) and the risks to themselves ($F(4, 1398)=41.95, p<.001$) were significantly different across the five risk cases. As can be seen in Table 10, the risks of Radioactive Waste to British society were seen as the highest, while the risks of Radiation from Mobile Phones, GM Food, and Genetic Testing to British society the lowest. Climate Change can be found in between

⁷ The “p” value represents the likelihood that an observed difference is due to chance. A difference is considered significant if this likelihood is smaller than 5% ($p<.05$). In general, three levels of significance are used, namely: $p<.05$, $p<.01$, and $p<.001$.

⁸ Please note that the two benefits questions for the Climate Change version were formulated as follows: “Thinking about possible future changes to the British climate, how would you assess the benefits, if any, for British society as a whole/yourself”, and for Radioactive Waste: “How would you assess the benefits, if any, of having Radioactive Waste for British society as a whole/yourself”.

⁹ People were also asked to indicate the benefits for society as well as the benefits for themselves of “the activities that can cause climate change (car use, factories, energy use)”. These perceived benefits were slightly higher, with $M=4.14$ ($SD=1.61$), and $M=3.89$ ($SD=1.76$), respectively. Likewise, people were asked to indicate the benefits for society as well as the benefits for themselves of “activities that generate radioactive waste (nuclear power production). These perceived benefits were also higher, with $M=3.85$ ($SD=1.66$), and $M=3.52$ ($SD=1.68$), respectively.

these risk cases. Respondents indicated that Climate Change and Radioactive Waste posed the highest risk to themselves, and Genetic Testing and Radiation from Mobile Phones the lowest, with GM Food taking a middle position. An ANOVA revealed that the four risk cases (excluding Genetic Testing) were seen as differentially impact the environment ($F(3,1130)=71.91, p<.001$), with Radioactive Waste posing the most risks to the environment and Radiation from Mobile Phones the least. GM Food and Climate Change could again be found in the middle.

Table 10. Perceived risks and benefits of five risks

	Climate Change	Mobile Phones	Rad. Waste	GM Food	Genetic Testing	<i>p</i>
Benefits for British society as a whole	3.49b (1.67)	4.79c (1.40)	2.36a (1.62)	3.45b (1.54)	4.81c (1.47)	<.001
Benefits for yourself	3.37c (1.66)	4.25d (1.84)	2.17a (1.60)	2.93b (1.56)	4.11d (1.84)	<.001
Risks to British society as a whole	5.05b (1.37)	4.49a (1.37)	5.42c (1.48)	4.54a (1.44)	4.36a (1.33)	<.001
Risks to yourself	4.83c (1.48)	3.57a (1.70)	5.12c (1.74)	4.30b (1.59)	3.89a (1.57)	<.001
Risks to the environment	5.30c (1.39)	4.02a (1.52)	5.67d (1.44)	4.89b (1.39)	--	<.001

Source: UEA/MORI Risk Survey 2002 (n= 1547). The scale ranged from 1: “Not at all” to 7: “Very high”, and 4: “Some” as the middle; Standard deviations are given in brackets. Means with different subscripts are significantly different from each other.

A pattern in Table 10 emerges with cases that are considered to have high risks for British society also being seen to pose a high risk to individual respondents themselves, suggesting that both are indicators of *general* risk perception. Likewise, cases that are seen to generate benefits for society as a whole are also perceived to have high personal benefits. To examine whether “Risks to British society as a whole” and “Risks to yourself” could be combined into one risk measure, and whether “Benefits for British society as a whole” and “Benefits for yourself” could be combined into one benefits measure, we conducted reliability analysis for each of the five risk cases.¹⁰

Table 11. Reliabilities of combined benefits and risks measures for five risk cases (Cronbach’s α)

	Climate Change	Mobile Phones	Rad. Waste	GM Food	Genetic Testing
┌Benefits for British society as a whole └Benefits for yourself	.95	.71	.96	.85	.79
┌Risks to British society as a whole └Risks to yourself	.93	.72	.92	.90	.80

Source: UEA/MORI Risk Survey 2002.

Table 11 shows that the reliability of the two benefits measures as well as the two risk measures is high for all cases. These high reliabilities justify making a combined benefit measure as well as a combined risk measure. The combined benefit measure was calculated by averaging people’s individual responses to “Benefits to British society as a whole” and “Benefits for yourself”, and the combined risk measure was calculated by averaging people’s responses to “Risks to British society as a whole” and “Risks to yourself”.

Table 12. Perceived risks and benefits of and ambivalence towards five risks

	Climate Change	Mobile Phones	Rad. Waste	GM Food	Genetic Testing	<i>p</i>
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¹⁰ A reliability analysis provides information about whether a scale is internally consistent. In other words, it determines the extent to which the items are related to each other. Cronbach’s α is a widely used model of internal consistency, based on the average inter-item correlation.

Combined Benefits	3.43b (1.63)	4.51c (1.65)	2.27a (1.58)	3.19b (1.44)	4.46c (1.52)	<.001
Combined Risks	4.94c (1.38)	4.03a (1.36)	5.27c (1.54)	4.42b (1.45)	4.12ab (1.32)	<.001
Correlation (r)	.06	.20	-.10	-.48	.11	

Source: UEA/MORI Risk Survey 2002. The scale ranged from 1: "Not at all" to 7: "Very high", and 4: "Some" as the middle; Standard deviations are given in brackets. Means with different subscripts are significantly different from each other.

As discussed earlier, it is often said that perceived risks are negatively related to perceived benefits, suggesting that they may reflect a general (affective) evaluation of a hazard. Table 12 reports the correlation between the combined benefits and combined risks measure for each of the risk cases. The only risk case for which there is a high negative correlation is GM Food. So, only for GM Food can the perceived risks and perceived benefits of GM Food be considered as reflecting a more general attitude towards this particular issue. A special case is Radiation from Mobile Phones, as a significant positive relationship between the combined benefits and combined risks measure was found. People who think that radiation from Mobile Phones is risky also feel that Mobile Phones have benefits. The latter may point to an ambivalent attitude towards the use of Mobile Phones.

Respondents were asked to evaluate the five risk cases on various qualitative aspects (see Table 13). Chosen from a large number of psychometric characteristics (see e.g. Slovic, 2000), we asked the respondents whether the risk case used in each version of the questionnaire has “unknown consequences”, poses “risks to future generations“, fills them with “dread”, whether the respondents are “well-informed” about, and feel able to “control any risks to myself” associated with that particular risk case. Moreover, people were asked whether they had “moral concerns”, and whether they thought that the risks were “unfair because the risks fall unevenly on particular groups in British society”. All items were answered on a five-point scale from 1: “totally disagree” to 5: “totally agree”.

Table 13. The five risks evaluated on various psychometric characteristics

	Climate Change	Mobile Phones	Rad. Waste	GM Food	Genetic Testing	<i>p</i>
Unknown consequences	4.13c (0.88)	3.77a (0.88)	3.98abc (0.95)	4.08bc (0.82)	3.88ab (0.82)	<.001
Risks to future generations	4.31c (0.73)	3.45a (0.87)	4.25c (0.73)	3.78b (0.93)	3.42a (1.01)	<.001
Dread	3.06b (1.12)	2.85ab (1.14)	3.42c (1.13)	2.86ab (1.28)	2.67a (1.18)	<.001
Well informed	2.80b (1.14)	2.40a (1.12)	2.27a (1.10)	2.50a (1.09)	2.35a (1.09)	<.001
Control any risks to myself	2.48ab (1.07)	3.18d (1.22)	2.21a (1.07)	2.66bc (1.20)	2.86c (1.14)	<.001
Unfair distribution of risks	3.00a (1.00)	3.09a (1.04)	3.47b (0.95)	3.18a (0.89)	3.18a (0.90)	<.001
Moral concerns	3.44bc (1.03)	3.15a (1.00)	3.68c (0.95)	3.29ab (1.13)	3.37ab (1.19)	<.001

Source: UEA/MORI Risk Survey 2002. The scale ranged from 1: “totally disagree” to 5: “totally agree”; Standard deviations are given in brackets. Means with different subscripts are significantly different from each other.

It appeared that people perceived the five risk cases differently on the selected psychometric characteristics ($F(28, 5038)=17.13, p<.001$). Table 13 shows that Climate Change and GM Food are seen to have more unknown consequences than Radiation from Mobile Phones and Genetic Testing ($F(4, 1267)=6.94, p<.001$). Likewise, Climate Change and GM Food are seen to pose more risks to future generation than Radiation from Mobile Phones and Genetic Testing do ($F(4, 1267)=63.79, p<.001$). However, Radioactive Waste filled people with more dread than Climate Change, GM Food, Radiation from Mobile Phones, and Genetic Testing ($F(4, 1267)=15.88, p<.001$). Perhaps surprisingly, people felt better informed about Climate Change than about the other risks ($F(4, 1267)=7.65, p<.001$). There were clear differences between the risks in whether people felt they were able to control any risks to themselves ($F(4, 1267)=27.88, p<.001$). People felt least able to control risks from Radioactive Waste and Climate Change, while they felt most able to control risks to themselves associated with Radiation from Mobile Phones. GM Food and

Genetic Testing took a middle position. It was felt that risks from Radioactive Waste were more unfair than the other risks, because they fall unevenly on particular groups in society ($F(4, 1267)=9.09, p<.001$). It appeared that people had more moral concerns about Climate Change and Radioactive Waste than about Radiation from Mobile Phones, GM Food and Genetic Testing ($F(4, 1267)=7.65, p<.001$).

From the evaluation of the various risk cases on the above characteristics, a consistent pattern emerges that Radioactive Waste is the most negatively evaluated risk case, while Radiation from Mobile Phones and Genetic Testing the most positively evaluated. In general, GM Food and Climate Change can be found in the middle regions.

Risk Regulation

People’s responses to risk are not solely driven by perceptions of the risk itself. It is also about perceptions of and preference for institutional handling of the issues. In this section, some results of public attitudes towards the management of the five risk cases will be discussed. Firstly, two items were used to assess public confidence in risk regulation, namely: “I feel that current rules and regulations in the UK are sufficient to control”, and “I feel confident that the British government adequately regulates” one of the five risk cases. Secondly, preferences for institutional arrangements for managing the risk issues were examined. That is, whether independent organisations are needed to regulate the risk cases.

Table 14. Public attitudes towards risk regulation

	Climate Change	Mobile Phones	Rad. Waste	GM Food	Genetic Testing	p
Confidence in risk regulation						
1. I feel that current rules and regulations in the UK are sufficient to control	2.59a (1.08)	2.79ab (0.81)	2.67ab (0.98)	2.61a (1.10)	2.91b (1.09)	<.001
2. I feel confident that the British government adequately regulates	2.56 (1.10)	2.61 (0.97)	2.74 (1.00)	2.57 (1.04)	2.73 (1.18)	n.s.
Independent regulatory organisations						
3. Organisations separate from government are needed to regulate	3.96b (0.87)	3.70a (0.93)	3.88ab (0.91)	3.87ab (0.91)	3.90ab (0.93)	<.05
4. Organisations separate from industry are needed to regulate	4.04b (0.84)	3.74a (0.93)	4.04b (0.83)	4.02b (0.86)	3.98b (0.92)	<.001

Source: UEA/MORI Risk Survey 2002. The scale ranged from 1: “totally disagree” to 5: “totally agree”; Standard deviations are given in brackets. Means with different subscripts are significantly different from each other.

Respondents were asked to indicate to what extent they agreed to the statements “Organisations separate from government are needed to regulate”, and “Organisations separate from industry are needed to regulate” one of the five risk issues in question. Responses to all statements could be given on a 5-point scale ranging from 1 “totally disagree” to 5 “totally agree”.

Table 14 shows that confidence in risk regulation was not very high for any of the five cases. The mean responses to the two items designed to measure confidence in risk regulation, were for all cases lower than the scale midpoint. This indicates that overall confidence in risk regulation is low. Some differences were found in confidence in regulation between the risk cases. It appeared that, on average, more people felt that current rules and regulations in the UK are sufficient to control Genetic Testing than to control Climate Change and GM Food ($F(4, 1304)=4.56, p<.001$). There was no difference in people’s expressed confidence that the British government adequately regulates any of the five risk cases (item 2; see Table 14).

Table 14 also shows that people felt that there was less need for organisations separate from government to regulate Radiation from Mobile Phones than to regulate Climate Change ($F(4, 1304)=2.98, p<.05$). Similar results could be found for the need for organisations independent from industry. On average, people expressed less need for organisations separate from industry to regulate Radiation from Mobile Phones than for the other four risk cases ($F(4, 1304)=5.73,$

p<.001). However, the means for both items were well above the scale midpoint for all risk cases. This implies that overall people do feel a need for independent organisations to regulate the five risk cases.

Social Influence

When talking about how people come to particular views on various (social) issues, people are not isolated individuals. People are exposed to news events, and to others who will try to make their case using arguments, rhetoric and persuasion. People also engage in discussions about the various (social) issues with their family, friends and with people at the workplace. So, it is likely that people's views are influenced by these (groups of) people.

Table 15. How concerned do you think the following groups are about ...?

	Climate Change	Mobile Phones	Rad. Waste	GM Food	Genetic Testing	p
Friends	3.40c (1.20)	2.62a (1.22)	3.33bc (1.19)	3.08b (1.18)	3.38bc (1.21)	<.001
Family	3.51c (1.11)	2.74a (1.23)	3.47bc (1.16)	3.18b (1.04)	3.58c (1.04)	<.001
People you work with	3.35c (1.18)	2.52a (1.20)	3.28bc (1.18)	2.97b (1.12)	3.32c (1.10)	<.001
Cronbach's α	.87	.89	.89	.85	.85	

Source: UEA/MORI Risk Survey 2002. The scale ranged from 1: "not at all concerned" to 5: "very concerned"; Standard deviations are given in brackets. Means with different subscripts are significantly different from each other.

In this study social influence on people's views on the five risk cases is explored by asking how concerned they thought their *family*, *friends*, and *people they work with* are about one of the five risk cases, dependent on the version of the questionnaire answered (see Table 15).¹¹ Scores could vary from 1: "not concerned at all" to 5: "very concerned".

Table 15 shows that, on average, people felt that friends ($F(4, 972)=17.05, p<.001$), family ($F(4, 972)=19.28, p<.001$), as well as colleague ($F(4, 972)=19.83, p<.001$) were differentially concerned about the five risk cases. For all three groups of people applied that they were (thought by respondents to be) least concerned about Radiation from Mobile Phones, most concerned about Radioactive Waste, Climate Change and Genetic Testing, and moderately concerned about GM Food. The resemblance between the three groups of people indicates that the social environment is (at least thought to be) uniform in relation to views on the five risk cases. To examine whether the three items could be used as indicators for a more general measure of "concern of people's social environment", separate reliability analyses were conducted for each of the risk cases. Table 15 shows that the reliabilities were (very) high for all risks. This justifies creating one measure by combining concern of friends, family and colleague.

Overall Concern and Acceptability

As we have seen in earlier sections, there are different (positive and negative) aspects associated with the five cases. For example, the risks substantially differ in perceived risks and perceived benefits (see Section *Perceptions of Risks and Benefits*). What does this say about the overall evaluation of the risk cases? Firstly, to assess how people balanced the risks and benefits for each of the cases, people were asked which of the following most closely reflected their own opinion "the benefits far outweigh the risks", "the benefits slightly outweigh the risks", "the benefits and the risks were about the same", "the risks slightly outweigh the benefits", "the risks far outweigh the benefits", or whether they did not know. Secondly, people were asked how concerned they are about the five risk issues. People could answer this question on a 5-point scale ranging

¹¹ This is sometimes referred to as the descriptive social norm (cf. Cialdini, Kallgren, & Reno, 1991; Ajzen & Fishbein, 1980).

from 1: "not concerned at all" to 5: "very concerned". Thirdly, respondents were asked to indicate to what extent they found the five risks acceptable. The scale ranged from 1: "very unacceptable" to 5: "very acceptable".

As can be seen in Table 16, people weighed the risks and benefits as substantially different across the five cases ($F(4, 1393)=47.89, p<.001$). Whereas a sizeable minority said that the benefits of Genetic Testing (37.4%) and Mobile Phones (41.4%) outweigh the risks, only 13.4%, 19.6%, and 15.% said this was the case for Climate Change, Radioactive Waste and GM Food respectively. Note that the average response was above the middle of the scale for Mobile Phones and Genetic Testing, suggesting that for these cases the benefits outweigh the risks.

Table 16. Weighing of Risks and Benefits

	1	2	3	4	5	Mean (SD)
Climate Change	33.0	21.5	21.2	8.4	5.0	2.22a (1.20)
Mobile Phones	9.4	7.5	34.8	22.6	18.8	3.34c (1.19)
Radioactive Waste	30.4	22.2	21.6	13.1	6.5	2.39ab (1.26)
GM Food	22.0	17.6	28.0	10.8	5.1	2.51b (1.19)
Genetic Testing	12.5	14.1	28.2	22.6	14.8	3.15c (1.25)

Source: UEA/MORI Risk Survey 2002. 1="the risks far outweigh the benefits", 2=" the risks slightly outweigh the benefits", 3="the risks and benefits are about the same", 4=" the benefits slightly outweigh the risks", 5="the benefits far outweigh the risks"; Percentages sum to 100 when the category "Don't know" is included; SD=Standard Deviation. Means with different subscripts are significantly different from each other.

Table 17 shows that people were differentially concerned about the five risk cases ($F(4, 1507)=24.78, p<.001$). People were most concerned about Radioactive Waste (64.7%), and Climate Change (61.9%), followed by Genetic Testing (49.6%). People were least concerned about Radiation from Mobile Phones (41.4%) and GM Food (38.1%). However, the means for all five risk cases were above the scale midpoint.

Table 17. Concern

	1	2	3	4	5	Mean (SD)
Climate Change	6.9	4.7	24.9	33.6	28.3	3.73b (1.14)
Radiation from Mobile Phones	15.4	10.7	30.4	27.3	14.1	3.14a (1.26)
Radioactive Waste	3.9	5.2	24.5	26.1	38.6	3.92b (1.10)
GM Food	15.9	11.1	31.1	19.9	18.2	3.14a (1.31)
Genetic Testing	11.8	8.9	27.5	26.6	23.0	3.41a (1.27)

Source: UEA/MORI Risk Survey 2002. The scale ranged from 1="Not at all concerned" to 5: "Very concerned"; Percentages sum to 100 when the category "Don't know" is included; SD=Standard Deviation. Means with different subscripts are significantly different from each other.

In Table 18 it can be seen that, on average, the five risk cases were not very acceptable. Apart from Genetic Testing, the means of the acceptability of the cases were below the scale midpoint, suggesting that these are considered unacceptable. The five risk cases were (un)acceptable to different degrees ($F(4, 1454)=43.85, p<.001$). Radioactive Waste was the least acceptable, with only 14.0% of the respondents saying this is an acceptable risk, while most people said that Genetic Testing was acceptable (51.8%). In between were Radiation from Mobile Phones,

Climate Change, and GM Food for which respectively 17.9%, 18.7%, and 22.0% of the respondents said these risks are acceptable.

Table 18. Acceptability

	1	2	3	4	5	Mean (SD)
Climate Change	18.4	25.9	29.3	15.6	3.1	2.53b (1.11)
Radiation from Mobile Phones	21.0	20.1	35.4	15.7	2.2	2.57b (1.07)
Radioactive Waste	28.8	33.3	21.2	12.4	1.6	2.23a (1.07)
GM Food	20.3	16.2	33.5	18.6	3.4	2.64b (1.17)
Genetic Testing	7.9	12.8	23.3	39.0	12.8	3.38c (1.15)

Source: UEA/MORI Risk Survey 2002. 1="Very unacceptable", 2="Fairly unacceptable", 3="Neither acceptable nor unacceptable", 4="Fairly acceptable", 5="Very acceptable"; Percentages sum to 100 when the category "Don't know" is included; SD=Standard Deviation. Means with different subscripts are significantly different from each other.

Trust

Trust in information sources

In the social sciences trust has become popular during the last two decades or so. Trust is considered as an important element of social capital and as a prerequisite for a healthy and flexible economy (e.g. Fukuyama, 1995; Cook, 2000). Likewise, trust is considered indispensable for social functioning, as it ensures smooth and harmonious interaction between members of various types of communities. Also in the field of risk research, there is a growing recognition that trust in (risk) regulators is an important factor in reactions to and acceptability of risks (e.g. Renn & Levine, 1991; Earle & Cvetkovich, 1995; Johnson, 1999; Slovic, 2000; Poortinga *et al.*, in press; Pidgeon & Poortinga, in press). It is also generally acknowledged that trust in a source is a prerequisite for effective risk communication. In the present study, respondents were asked to indicate to what extent they trusted various sources to tell them the truth about the different risk cases (see Table 19). The respondents could respond on a scale that ranged from 1: "Distrust a lot" to 5: "Trust a lot", with 3: "neither trust nor distrust" as the midpoint.

Table 19 shows the average trust in various sources to tell the truth about the five risk cases. Overall, people seem to trust doctors, friends and family, and to a somewhat lesser extent environmental organisations and scientists working for university to tell the truth. On the other hand, people seem to distrust the national government, the EU and scientists working for industry. Likewise, trust in the various “industries” is quite low. There are also some interesting differences in trust judgements between the five risk cases.

- Consumer rights organisations were more trusted to tell the truth about Radiation from Mobile Phones than about Climate Change ($F(4, 1337)=2.42, p<.05$).
- Family and Friends were more trusted for Genetic Testing, than for Radiation from Mobile Phones, GM Food and Radioactive Waste ($F(4, 1337)=10.81, p<.001$).
- Environmental organisations are more trusted to tell the truth about Genetic Testing than about Radiation from Mobile Phones ($F(4, 1337)=3.83, p<.01$). Scientists working for government were uniformly (moderately) trusted across the five cases.
- Local authorities were more trusted for Radioactive Waste than for GM Food ($F(4, 1337)=4.75, p<.001$).
- People trusted people from their own local community more for Radioactive Waste than for GM Food ($F(4, 1337)=5.61, p<.05$).
- Trust in scientists working for industry was equally low across all cases.
- Although overall trust in government was low, they were more trusted for Genetic Testing than for Climate Change and GM Food ($F(4, 1337)=4.90, p<.001$).
- A similar pattern could be found for the European Union (EU). The EU was somewhat more trusted to tell the truth about Genetic Testing than about Climate Change ($F(4, 1337)=2.68, p<.05$).
- Trust in scientists working for environmental organisations was the same across the five risk cases, and was reasonably high.
- People trusted scientists working for universities slightly more, and this was higher for Genetic Testing than for Climate Change Radioactive Waste and GM Food ($F(4, 1337)=4.41, p<.01$).
- The various business sectors and “industries” could not be compared directly, as they were different for each of the risk cases. In general, the various industries were the most distrusted information sources for the different risk cases. The average responses were mostly halfway between 3: “neither agree nor disagree” and 2: “tend to distrust” when asked whether the industries should be involved in making decisions. The ministry of defence (Radioactive Waste) and the pharmaceutical industry (Genetic Testing) were at the scale midpoint, indicating a neutral trust judgment.

Table 19. Trust in Various Sources to tell the Truth

	Climate Change	Mobile Phones	Rad. Waste	GM Food	Genetic Testing	p
Consumer rights organisations	3.67a (0.94)	3.91b (0.94)	3.80ab (0.96)	3.81ab (1.01)	3.87ab (1.00)	<.05
Friends and family	4.12bc (0.86)	3.75a (0.96)	3.96ab (1.03)	3.93ab (0.94)	4.23c (0.87)	<.001
Environmental organisations	4.03ab (0.88)	3.84ab (0.87)	4.01ab (0.95)	3.83a (0.98)	4.06b (0.87)	<.01
Scientists working for Government	3.06 (1.12)	3.17 (1.09)	3.19 (1.17)	2.99 (1.15)	3.24 (1.34)	n.s.
Local authorities	3.10ab (1.02)	3.08ab (0.94)	3.30b (1.06)	2.90a (1.02)	3.12ab (1.12)	<.001
People from your local community	3.44ab (0.90)	3.42a (0.84)	3.67c (0.89)	3.40a (0.85)	3.63bc (0.92)	<.001
Scientists working for industry	2.73 (1.21)	2.75 (1.12)	2.86 (1.26)	2.89 (1.17)	2.98 (1.24)	n.s.
The national government	2.66a (1.20)	2.87ab (1.12)	2.83ab (1.20)	2.74a (1.20)	3.09b (1.36)	<.001
The European Union (EU)	2.78a (1.17)	2.98ab (1.09)	2.91ab (1.19)	2.82ab (1.23)	3.07b (1.30)	<.05
Scientists working for environmental groups	3.82 (1.04)	3.78 (0.86)	3.85 (1.04)	3.73 (0.95)	3.97 (0.90)	n.s.
Scientists working for Universities	3.87a (0.97)	3.92ab (0.86)	3.86a (0.95)	3.83a (0.84)	4.11b (0.85)	<.01
Doctors	3.97a (0.98)	4.12ab (0.82)	4.07ab (0.87)	3.95a (0.91)	4.23b (0.91)	<.01
Car companies	2.39 (1.13)					
Oil companies	2.34 (1.13)					
Mobile Phone manufacturers		2.39 (1.12)				
Network companies		2.43 (1.12)				
Ministry of defence			3.03 (1.20)			
Nuclear industry			2.69 (1.24)			
Food manufacturers				2.62 (1.18)		
Biotechnology industry				2.83 (1.16)		
Pharmaceutical industry					3.01 (1.24)	
Insurance companies					2.43 (1.21)	

Source: UEA/MORI Risk Survey 2002. The scale ranged from 1: “distrust a lot” to 5: “trust a lot”; Standard deviations are given in brackets. Means with different subscripts are significantly different from each other.

Involvement in Decision-making

This section reports on the results of involvement in decision-making. People were asked to what extent they agreed that various (groups of) people and organisations should be involved in making decisions about the five risk cases (Table 19). They could answer on a 5-point scale ranging from 1: “totally disagree” to 5: “totally agree”. A popular notion in recent years is that public involvement in risk decision making is an important prerequisite for resolving risk conflicts, communicating risk information, and promoting greater public understanding of these issues (see Pidgeon *et al.*, 1992; National Research Council, 1996). Although many studies have shown that a

majority of people agree with the idea of public involvement in managing risks, the willingness to get personally involved may not be very high. For that reason, we also asked people to specify to what extent they agreed with the statement “I would like to be personally consulted in policy making decisions” about one of the five risk cases. Table 20 shows that there are marked differences in beliefs about which groups of people and organisations should be involved in making decisions across the five risk cases ($F(48, 5446)=5.97, p<.001$).

- The only non-significant group was “the general public”, as people agreed that the general public should be involved in all cases.
- Respondents believed more strongly that consumer organisations should be involved in making decisions about GM Food compared to Climate Change and Radioactive Waste ($F(4, 1374)=5.13, p<.001$).
- Environmental organisations, on the other hand, were thought to be better involved in making decisions about Climate Change than about Radiation from Mobile Phones and GM Food ($F(4, 1374)=7.02, p<.001$).
- People believed more strongly that scientists working for government should be involved in making decisions about Climate Change than about GM Food ($F(4, 1374)=3.21, p<.05$).
- Local authorities should be more involved in making decisions about Radioactive Waste, Climate Change, and Genetic Testing than about GM Food and Radiation from Mobile Phones ($F(4, 1374)=23.84, p<.001$).
- Likewise, local communities should be more involved in making decisions about Climate Change and Radioactive Waste than about Radiation from Mobile Phones and GM Food ($F(4, 1374)=9.82, p<.001$).
- Although there was an overall difference in agreement that scientists working for industry should be involved in making decisions about the five risk cases ($F(4, 1374)=3.51, p<.01$), there were no specific pair-wise differences.
- The national government should be more involved in making decisions about Climate Change and Radioactive Waste than about Radiation from Mobile phones and GM Food ($F(4, 1374)=6.53, p<.001$).
- Likewise, the European Union (EU) should be more involved in Climate Change than in Radiation from Mobile Phones, GM Food and Genetic Testing ($F(4, 1374)=5.87, p<.001$).
- As with environmental organisations, scientists working for environmental organisations should be more involved in making decisions about Climate Change than about Radiation from Mobile Phones and GM Food ($F(4, 1374)=4.77, p<.001$).
- According to the respondents, scientists working for universities should be more involved in Genetic Testing than in Radioactive Waste and Radiation from Mobile Phones ($F(4, 1374)=5.26, p<.001$).
- Doctors should be more involved in Genetic Testing than in the other four risk cases ($F(4, 1374)=6.09, p<.001$).
- The various business sectors and “industries” could not be compared directly, as they were different for each of the risk cases. The responses about whether the various industries should be involved in making decisions were moderately positive, as on average they were mostly somewhere halfway between 3: “neither agree nor disagree” and 4: “tend to agree”. However, insurance companies (in relation to decisions about Genetic Testing) were the only industry that received an average agreement lower than the scale midpoint, which was well below the agreement for all other such groups.

Table 20 also includes the average agreement with the statement “I would like to be personally consulted in policy making decisions” for each of the five risk cases. Average agreement to be personally involved is lower than the agreement with the involvement of other organisations and

groups of people in decision-making about all risk cases, and was close to the middle of the scale. People thought that they would like to be personally consulted about Genetic Testing and Climate Change, than about decisions about Radiation from Mobile Phones ($F(4, 1446)=3.64, p<.01$). Involvement in making decisions about Radioactive Waste and GM Food could be found in between the former risk cases

Table 20. How much do you agree that the following should be involved in decision-making about...?

	Climate Change	Mobile Phones	Rad. Waste	GM Food	Genetic Testing	p
Consumer rights organisations	3.72a (0.88)	3.87ab (0.80)	3.83a (0.93)	4.06b (0.83)	3.88ab (0.97)	<.001
The general public	4.04 (0.77)	3.94 (0.83)	3.98 (0.93)	4.06 (0.86)	4.11 (0.89)	n.s.
Environmental organisations	4.33c (0.70)	4.02a (0.82)	4.27bc (0.78)	4.10ab (0.84)	4.20abc (0.78)	<.001
Scientists working for Government	4.01b (0.86)	3.79ab (0.94)	3.93ab (0.92)	3.64a (1.04)	3.89ab (1.05)	<.05
Local authorities	3.89b (0.85)	3.36a (1.08)	3.89b (0.91)	3.31a (1.03)	3.42b (1.09)	<.001
People from your local community	3.97b (0.78)	3.60a (0.99)	3.95b (0.89)	3.64a (0.97)	3.78ab (0.94)	<.001
Scientists working for industry	3.76 (1.11)	3.57 (1.13)	3.76 (1.11)	3.50 (1.12)	3.52 (1.18)	<.01
The national government	4.03b (0.92)	3.68a (1.07)	4.00b (0.94)	3.73a (1.02)	3.83ab (1.14)	<.001
The European Union (EU)	3.82b (1.11)	3.36a (1.19)	3.60ab (1.24)	3.45a (1.22)	3.53a (1.26)	<.001
Scientists working for environmental groups	4.28b (0.67)	4.05a (0.78)	4.19ab (0.77)	4.04a (0.75)	4.16ab (0.84)	<.001
Scientists working for Universities	4.15bc (0.75)	4.00ab (0.86)	3.94a (0.90)	4.04abc (0.74)	4.20c (0.76)	<.001
Doctors	4.06a (0.85)	4.08a (0.80)	4.00a (0.85)	3.97a (0.82)	4.28b (0.79)	<.001
Car companies	3.43 (1.22)					
Oil companies	3.47 (1.28)					
Mobile Phone manufacturers		3.48 (1.17)				
Network companies		3.30 (1.21)				
Ministry of defence			3.79 (1.00)			
Nuclear industry			3.72 (1.20)			
Food manufacturers				3.53 (1.13)		
Biotechnology industry				3.40 (1.11)		
Pharmaceutical industry					3.60 (1.13)	
Insurance companies					2.70 (1.26)	
Personal involvement						
I would like to be personally consulted in policy making decisions about	3.09b (1.10)	2.80a (1.07)	2.97ab (1.15)	2.88ab (1.17)	3.07b (1.13)	<.01

Source: UEA/MORI Risk Survey 2002. The scale ranged from 1: "strongly disagree" to 5: "strongly agree"; Standard deviations are given in brackets. Means with different subscripts are significantly different from each other.

Evaluation of Governmental Policy

It is often argued that *trust* is a complex and multifaceted concept. Studies of trust in institutions primarily focus on identifying which factors influence trust-judgments: a range of factors appear to influence trust in risk managing institutions, which Johnson (1999) summarises under the rubrics of *competence*, *care* and *consensual values*. In this study, respondents were asked to evaluate governmental policy on the five risk issues. The statements were selected from a review

of previous trust work (e.g. Renn and Levine, 1991; Frewer *et al.*, 1996; Peters, Covello & McCallum, 1997; Johnson, 1999; Metlay, 1999). The items used were designed to measure *competence*, *credibility*, *reliability*, *integrity* (vested interests), *care*, *fairness*, and *openness*. Eleven statements related to these concepts are presented in Table 21. Recently, Earle and Cvetkovich (1995) have argued that trust is mainly based on assumed agreement and sympathy, rather than necessarily reasoned arguments. In other words, trust judgments may under some circumstances be based on perceived shared values. For that reason two items were included aimed at measuring the extent to which the government was seen as having the same values as respondents about the different risk contexts. Respondents were asked to what extent they agreed with these statements. All answers could be given on a 5-point scale, ranging from 1: “totally disagree”, to 5: “totally agree”.

Table 21 shows the results of the evaluation of government policy on the five risk cases. There were very few univariate differences in evaluation of the government between the five risk cases.

- Only for credibility, one competence item, and the two value similarity items were differences found.
- Although there were overall differences in whether the government distorts facts in its favour regarding the five risk cases ($F(4, 1153)=2.78, p<.05$), there were no specific pairwise differences.
- It is thought that the government is doing a better job with regard to Genetic Testing than for Climate Change and GM Food ($F(4, 1153)=4.42, p<.01$).
- Moreover, it appeared that people more strongly agreed that the government has the same opinion ($F(4, 1153)=2.56, p<.05$) and that the government has the same ideas ($F(4, 1153)=2.86, p<.05$) as themselves about Radiation from Mobile Phones than about GM Food.

Table 21. Evaluation of Government

	Climate Change	Mobile Phones	Rad. Waste	GM Food	Genetic Testing	p
Competence						
1. The government is doing a good job	2.41a (0.96)	2.50abc (0.88)	2.66bc (0.84)	2.45ab (1.01)	2.70c (0.99)	<.01
2. The government is competent enough	2.60 (1.08)	2.62 (1.05)	2.58 (1.02)	2.50 (1.16)	2.72 (1.17)	n.s.
3. The government has the necessary skilled people	2.96 (1.08)	2.91 (1.01)	3.07 (1.02)	2.84 (1.08)	3.09 (1.15)	n.s.
Credibility						
4. The government distorts facts in its favour	3.71 (0.94)	3.53 (0.94)	3.69 (0.93)	3.72 (0.90)	3.50 (1.11)	<.05
Reliability						
5. The government changes policies without good reasons	3.56 (0.88)	3.43 (0.82)	3.40 (0.87)	3.61 (0.94)	3.44 (0.98)	n.s.
Integrity (vested interests)						
6. The government is too influenced by industry	3.73 (0.87)	3.58 (0.83)	3.58 (0.86)	3.66 (0.91)	3.54 (0.94)	n.s.
Care						
7. The government is acting in the public interest	2.60 (1.01)	2.80 (0.93)	2.72 (0.94)	2.63 (1.14)	2.79 (1.11)	n.s.
8. The government listens to concerns raised by the public	2.59 (0.99)	2.66 (0.97)	2.67 (0.96)	2.54 (1.06)	2.70 (1.11)	n.s.
9. The government listens to what ordinary people think	2.31 (0.98)	2.39 (0.96)	2.35 (0.98)	2.28 (1.05)	2.38 (1.04)	n.s.
Fairness						
10. I feel that the way the government makes decisions is fair	2.51 (0.91)	2.60 (0.83)	2.63 (0.87)	2.43 (1.00)	2.56 (1.02)	n.s.
Openness						
11. The government provides all relevant information to the public	2.15 (0.93)	2.19 (0.93)	2.06 (0.88)	2.07 (0.95)	2.07 (1.04)	n.s.
Value similarity						
12. The government has the same opinion as me	2.48ab (0.98)	2.58b (0.85)	2.45ab (0.87)	2.29a (1.04)	2.47ab (1.01)	<.05
13. The government has the same ideas as me	2.35ab (0.91)	2.53b (0.89)	2.48ab (0.87)	2.27a (0.97)	2.43ab (0.97)	<.05

Source: UEA/MORI Risk Survey 2002. The scale ranged from 1: “strongly disagree” to 5: “strongly agree”; Standard deviations are given in brackets. Means with different subscripts are significantly different from each other.

To examine whether the evaluation of government could be described by a number of underlying dimensions, a PCA was conducted across all five cases.¹² Table 22 shows that the eleven statements (excluding the statements about value similarity) could be described by two main factors. Two factors were successfully extracted which accounted for 61.7% of the variance of the original variables. Most items loaded high on the first factor, which accounted for 40.5% of the variance. This factor was concerned with competence, care, fairness and openness, and can be interpreted as a *general trust* factor. That is, it represents a general evaluation of government policy on the five risk issues. The second factor accounted for 21.2% of the original variance and was concerned with credibility, reliability, and integrity (vested interest). The items “the government distorts facts in its favour regarding ...”, “the government changes policies regarding ... without good reasons”, and “the government is too influenced by industry regarding ...” one of five risk cases. This factor reflects a sceptical view of government policy and can be labelled as *scepticism*. The scores on the two factors were calculated by averaging the ratings on the items that had loadings higher than .40 on that factor. Next to the latter two dimensions, a *value similarity*

¹² Separate Principal Component Analyses (PCAs) were conducted for each of the five risk cases. As the results were similar, a further PCA was conducted across all five cases. This also enables to make comparisons between the five risk cases on the resulting factors.

dimension was constructed, by combining the items “the government has the same opinion as me about ...” and “the government has the same ideas as me about ...” (Cronbach’s α between .77 and .85 for the five cases).

Table 22. Factor loadings after Varimax rotation.

	Factor	
	1	2
The government is doing a good job	.77	-.25
The government is competent enough	.76	-.27
The government has the necessary skilled people	.65	-.12
The government distorts facts in its favour	-.23	.82
The government changes policies without good reasons	-.22	.84
The government is too influenced by industry	-.24	.73
The government is acting in the public interest	.72	-.26
The government listens to concerns raised by the public	.75	-.13
The government listens to what ordinary people think	.75	-.24
I feel that the way the government makes decisions is fair	.77	-.28
The government provides all relevant information to the public	.69	-.25
Eigenvalue	3.91	2.28
Explained Variance	40.5	21.2
Average agreement	2.58	3.57
Cronbach’s α	.90	.77

Source: UEA/MORI Risk Survey 2002 (N= 1547). The scale ranged from 1: “totally disagree” to 5: “totally agree”; Factor loadings higher than 0.40 are in bold; Factor interpretations: 1) General Trust; 2) Scepticism.

Table 23 presents the average ratings on the three factors for the five risk cases. There were some differences on the three factors ($F(12, 3467)=1.94, p<.05$). It appeared that these differences could mainly be attributed to differences on the Scepticism factor ($F(4, 1159)=2.70, p<.05$) and on the Value similarity factor ($F(4, 1159)=3.27, p<.05$). Although overall differences were found on the Scepticism factor, no specific pairwise differences were found between the risk cases. For the value similarity factor it appeared that people agreed more strongly that the government had the same ideas as themselves about Radiation from Mobile Phones than about GM Food. Conspicuously, all ratings on the first general trust factor were below the scale midpoint, indicating low trust in the government across the five risk issues. On the other hand, ratings on the scepticism factor were relatively high for each of the risk cases. Moreover, the ratings on the value similarity factor were well below the scale midpoint. This indicates that, on average, the government is not seen to have the same views as the respondents themselves have.

Table 23. Evaluation of Government

	Climate Change	Mobile Phones	Rad. Waste	GM Food	Genetic Testing	p
General Trust	2.53 (.73)	2.60 (.70)	2.60 (.69)	2.47 (.85)	2.62 (.86)	n.s.
Scepticism	3.66 (.72)	3.49 (.73)	3.56 (.74)	3.65 (.79)	3.50 (.84)	<.05
Value Similarity	2.42ab (.85)	2.56b (.79)	2.47ab (.79)	2.27a (.93)	2.45ab (.93)	<.05

Source: UEA/MORI Risk Survey 2002. The scale ranged from 1: “strongly disagree” to 5: “strongly agree”; Standard deviations are given in brackets. Means with different subscripts are significantly different from each other.

Risk Specific Question

Climate Change

At the end of each version of the questionnaire one risk specific question was asked. The people who filled in the questionnaire about Climate Change were asked to indicate whether their households had done the following things in the last year or two: asked their electricity or gas supplier for advice about energy efficiency, made an effort to use public transport instead of using a car, and used energy saving light bulbs (see Table 24). They could respond with “yes” or “no”.

Table 24. Which, if any, of the following things have your household done in the last year or two?

	NO	YES
Asked your electricity or gas supplier for advice about energy efficiency	70.7	29.3
Made an effort to use public transport instead of using a car	58.3	41.7
Used energy saving light bulbs	49.5	50.5

Source: UEA/MORI Risk Survey 2002. N=321. Multiple answers were possible.

It appeared that less than a third (29.3%) of the respondents had asked their electricity or gas supplier for advice about energy efficiency, whereas 41.7% had made an effort to use public transport instead of using a car in the last year or two. Just over half of the respondents (50.5%) had used energy saving light bulbs

Mobile Phones

The respondents, who filled in the Mobile Phones questionnaire, were asked how often they used a Mobile Phone. They could respond by saying “many times a day”, “once or twice a day”, “a few times a week”, “less than once a week (only for emergencies)”, “I don’t have a Mobile Phone”, or “Don’t know”. Table 25 shows that about one third of the respondents (31.0%) uses a Mobile Phone at least once or twice a day. About a quarter (24.8%) uses a Mobile Phone a few times a week, whereas 21.6% uses a Mobile Phones less than once a week, for example only for emergencies. Less than a quarter of the respondents did not have a Mobile Phone (22.6%). There were no respondents who opted for “Don’t know”.

Table 25. How often do you use a Mobile Phone? (%)

Many times a day	14.4
Once or twice a day	16.6
A few times a week	24.8
Less than once a week - only for emergencies	21.6
I don't have a Mobile Phone	22.6
Don't know	-

Source: UEA/MORI Risk Survey 2002. N=319.

Radioactive Waste

In the version that dealt with Radioactive Waste, respondents were asked whether they lived near a nuclear facility, such as a nuclear power plant or radioactive waste facility. The respondents could answer with “yes” or “no”. Table 26 shows that 12.1% indicated that they live near a nuclear facility, such as a nuclear power plant or Radioactive Waste facility, whereas 81.0% think they don’t. Of the respondents 6.9% did not know whether they lived near a nuclear facility or not.

Table 26. Do you live near a nuclear facility, such as a nuclear power plant or Radioactive Waste facility? (%)

Yes	12.1
No	81.0

Source: UEA/MORI Risk Survey 2002. N=306.

GM Food

Respondents who filled in the questionnaire about GM Food were asked how much they agreed with the statement “I personally would be happy to eat genetically modified food”. The answers could be given on a 5-point scale, ranging from 1: “totally disagree” to 5: “totally agree” (see Table 27). Close to half of the respondents (45.9%) tended to disagree or strongly disagree with the statement “I personally would be happy to eat genetically modified food”, whereas 28.7% did agree. About a fifth of the respondents (19.6%) neither agreed nor disagreed with the statement. Moreover, 5.7% did not know whether they would be happy to eat genetically modified food.

Table 27. How much do you agree with the statement “I personally would be happy to eat genetically modified food?” (%)

Strongly disagree	25.3
Tend to disagree	20.6
Neither agree nor disagree	19.6
Tend to agree	20.9
Strongly agree	7.8
Don't know	5.7

Source: UEA/MORI Risk Survey 2002. N=296.

Genetic Testing

The version of the questionnaire about Genetic Testing contained a question about whether people would be happy to have a Genetic Test to identify whether or not they have any inherited medical conditions. People could answer on a 5-point scale, ranging from 1: “totally disagree” to 5: “totally agree” (see Table 28). Well over half of the people were willing to have a Genetic Test (56.4%). About a third of the people were not happy to have a Genetic Test to identify whether or not they had any inherited medical conditions (30.5%). Of all respondents, 11.1% neither agreed or disagreed with the statement “I personally would be happy to have a Genetic Test to identify whether or not I have any inherited medical conditions”, and only 1.6% did not know

Table 28. Responses to the statement “I personally would be happy to have a Genetic Test to identify whether or not I have any inherited medical conditions?” (%)

Strongly disagree	16.7
Tend to disagree	13.8
Neither agree nor disagree	11.1
Tend to agree	27.9
Strongly agree	28.5
Don't know	1.6

Source: UEA/MORI Risk Survey 2002. N=305.

Vulnerability

A special focus of the study is on perspectives of specific social groupings, particularly vulnerable and/or marginalized groups in society. Next to using socio-demographics to identify groups in society that are commonly assumed to be vulnerable in some respect (viz., elderly people, young people, unemployed, low-income households, members of ethnic minorities, and people with no formal qualifications; see Burden, 1998), additional questions were asked that focussed on different dimensions of exclusion. Subjective measures included in the survey to allow an exploration of the relationship between experienced exclusion, and risk perception, trust and involvement in decision-making. Such a very complex issue as vulnerability is analysed using three dimensions of exclusion, namely *social exclusion*, *political exclusion*, and *impoverishment* (or exclusion from adequate income or resources; see Gordon, 2000). The questions in this section were common to the whole sample of 1547 respondents. In the present report we only report the basic exclusion responses.

Social Exclusion

Four indicators were related to social exclusion, which is also often referred to as a (lack of) social capital, and involves social networks, social cohesion, and interpersonal trust (Putnam, 1993; Blaxter, 2000; Veenstra 2000). The first indicator was related to social networks, and was aimed at measuring the frequency of social interactions. People were asked to indicate how regularly they *speak to* family members, friends, and neighbours (Table 29), and how regularly they *visit* family members, friends, and neighbours (Table 30). Response categories for both sets of questions were “Often”, “Regularly”, “Sometimes”, “Rarely”, “Never”, and “Don’t know”. The second indicator was about someone’s involvement in his or her local community. This was measured by asking “do you undertake any voluntary work in your local community?” (Table 31). Response categories were “Yes”, “No”, and “Don’t know”. The third indicator for social exclusion was about interpersonal trust, as this is regarded as an important component of social capital (Putnam, 1993). General (interpersonal) trust was measured by asking people to what extent they agreed with the statement “Most people are trustworthy” (Table 32). The scale ranged from 1: “totally disagree” to 5: “totally agree”. The fourth indicator for social exclusion was whether people feel that they have a say in their local community. People were asked to finish the statement “In general, compared to other people in your local community, do you feel that on local issues you have ...” (Table 33). They could choose between “More say than them”, “Less say than them”, “no difference”, and “Don’t know”.

Table 29 shows that a large majority (93.4%) speak to their family, and friends (91.7%) at least on a regular basis. Only 1.7% rarely or never speaks to their family or friends. People speak less often to neighbours, although 62.5% still speaks to their neighbours regularly or often. About a quarter of the respondents (26.2%) sometimes speaks to their neighbours, and 10.7% rarely or never.

Table 29. How regularly do you speak to the following groups of people?

	Never	Rarely	Sometimes	Regularly	Often	Don't know
Family members	0.3	1.4	4.3	27.4	66.0	0.7
Friends	0.2	1.5	6.2	35.1	56.6	0.6
Neighbours	1.7	9.0	26.2	31.8	30.7	0.5

Source: UEA/MORI Risk Survey 2002; Person Weighed Data Set (N= 1547).

Table 30 shows that a majority visit their family (79.2%), and friends (75.1%) at least on a regular basis. Only a small number of respondents rarely or never visit their family (6.3%) or friends (5.9%). Neighbours were visited less often than family and friends. Neighbours were visited regularly or often by 37.4% of the respondents and rarely or never by 36.0%. About a quarter of the respondents (25.8%) visit their neighbours sometimes.

Table 30. How regularly do you visit to the following groups of people?

	Never	Rarely	Sometimes	Regularly	Often	Don't know
Family	1.4	4.9	13.9	31.8	47.4	0.7
Friends	0.7	5.2	18.5	36.2	38.9	0.5
Neighbours	14.0	22.0	25.8	20.9	16.5	0.7

Source: UEA/MORI Risk Survey 2002; Person Weighed Data Set (N= 1547).

The second indicator for social exclusion (or inclusion) was someone’s involvement in his or her local community. Table 31 shows that 16.5% of the respondents reported that they undertook voluntary work in their local community, 79.1% did not, and 4.4% don’t know or won’t say.

Table 31. Do you undertake any voluntary work in your local community? (%)

Yes	16.5
No	79.1

Source: UEA/MORI Risk Survey 2002; Person Weighed Data Set (N= 1547).

The third indicator for social inclusion was concerned with (general) interpersonal trust, an important component of social capital. Table 32 shows that most people of the sample indicated that most people are trustworthy (44.5%). However, a substantial minority (30.8%) thought that most people are not trustworthy. About a quarter of the respondents neither agreed nor disagreed with the statement “Most people are trustworthy” (23.8%). Only 1.1% opted for “don’t know”.

Table 32. How much do you agree with the statement “Most people are trustworthy”? (%)

Strongly disagree	8.0
Tend to disagree	22.8
Neither agree nor disagree	23.6
Tend to agree	41.0
Strongly agree	3.5
Don't know	1.1

Source: UEA/MORI Risk Survey 2002; Person Weighed Data Set (N= 1547).

Table 33 shows the results of the question whether, compared to other people in their local community, people felt they had more, less or equal say on local issues. Whereas a majority (76.0%) think that there was no difference from other people, 10.6% think that they have less say, and 6.7% think that they have more say than other people in their local community about local issues. Of all respondents, 6.6% did not know.

Table 33. In general, compared to other people in your local community do you feel that on local issues you have...? (%)

More Say	6.7
Less say	10.6
No difference	76.0
Don't know	6.6

Source: UEA/MORI Risk Survey 2002; Person Weighed Data Set (N= 1547).

Political Exclusion

Two indicators were used for political exclusion, the second dimension of vulnerability. Firstly, people were asked to complete the question “In general, compared to other people in Britain, do you feel that on national issues you have ...” (Table 34). People could answer by checking either “More say than them”, “Less say than them”, “no difference”, or “Don’t know”. Secondly, we asked whether the respondent had voted in the last general elections (Table 35). Response categories were “Yes”, “No”, and “Don’t know/ Not applicable”.

Table 34 shows that a large number of people felt that, compared to other people in Britain, there is no difference in how much say they have on national issues. About one in eighth respondents (12.4%) thought they had less say, and 6.3% thought that they had more say than other people in Britain on national issues. And 9.2% of the people did not know.

Table 34. In general, compared to other people in Britain do you feel that on national issues you have...? (%)

More Say	6.3
Less say	12.4
No difference	72.1
Don't know	9.2

Source: UEA/MORI Risk Survey 2002; Person Weighed Data Set (N= 1547).

Table 35 shows the results of the question whether people voted or not in the last general election in June 2001. It appeared that 62.9% of the respondents indicated that they did vote in the 2001 elections, while 28.8% said they did not vote in that election. About a twelfth of the sample (8.3%) indicated that they did not know whether they had voted in the last elections.

Table 35. Did you vote in the last general election in June 2001? (%)

Yes	62.9
No	28.8
Don't know/ NA	8.3

Source: UEA/MORI Risk Survey 2002; Person Weighed Data Set (N= 1547). NA= Not Applicable

Impoverishment

The third dimension of vulnerability measured was concerned with impoverishment. People may be excluded because they lack the resources even to afford the most basic services. Next to the usual question on income, which can be used as a fairly objective indicator for exclusion from adequate income or resources, people were asked to indicate how often it happens that their household does not have enough money to afford necessities, such as food and clothing, or to meet the payment of (water, gas and electricity) bills (Table 36). The response categories were “Always”, “Frequently”, “Occasionally”, “Rarely”, “Never”, and “Don’t know”.

To a large majority of the respondents it rarely or never happens that their household does not have enough money to afford necessities (77.1%). To 11.5% it happens occasionally, and to 8.8% it happens frequently or always that their household does not have enough money to afford food and clothing, or to meet the payment of water, gas and electricity bills. Only a small percentage indicated that they did not know how often it happens (2.6%).

Table 36. How often does it happen that your household do not have enough money to afford necessities, such as food and clothing, or to meet the payment of (water, gas and electricity) bills?

Always	1.9
Frequently	6.9
Occasionally	11.5
Rarely	16.6
Never	60.5
Don't know	2.6

Source: UEA/MORI Risk Survey 2002; Person Weighed Data Set (N= 1547).

Miscellaneous

In addition, the questionnaire contained a number of (background) questions that were not directly related to each other. These questions, that were common to all respondents, will be described succinctly in this section.

Table 37. Which of these daily newspapers do you read regularly?

The Sun	18.1
Daily Mail	15.5
The Daily Telegraph	6.0
The Times	5.7
The Express	4.8
The Guardian	3.7
Daily Record	3.0
The Independent	2.5
Daily Star	2.4
Financial Times	1.9
Evening Standard	1.9
Metro	1.5
The Herald (Glasgow)	1.2
The Scotsman	0.6
Other	12.8
None of these	36.3

Source: UEA/MORI Risk Survey 2002; Person Weighed Data Set (N= 1547); Multiple answers were possible

People were asked which newspapers they read regularly (see Table 37). By regularly is meant three out of every four issues. The (tabloid) papers the Sun and the Daily Mail were read the most (18.1% and 15.5% respectively). The Daily Telegraph and the Times (6.0% and 5.7% respectively) were the most read broadsheets. Table 37 shows that, of the other major broadsheets, the Guardian was read by 3.7%, and the Independent by 2.5% of the British population. It appeared that 12.8% read other newspapers, and about a third of the British population did not read any of these papers.

Additionally, people were asked which of the Sunday newspapers they read regularly. In Table 38 it can be seen that the News of the World (18.1%) and the Mail on Sunday (12.6) and the Sunday Times (8.8%) were the most read Sunday newspapers, followed by the Sunday Mirror (7.9%), the Sunday Telegraph (4.9%) and the Sunday People (4.2%). The Observer (the Sunday sister newspaper of the Guardian) was read regularly by 2.3%, and the Independent on Sunday by 1.6% of the British population. Only 1.6% read other Sunday newspapers, and 41.5% did not read any of the mentioned Sunday newspapers.

Table 38. Which of these daily newspapers do you read regularly?

News of the World	18.1
The Mail on Sunday	12.6
The Sunday Times	8.8
Sunday Mirror	7.9
The Sunday Telegraph	4.9
Sunday People	4.5
Sunday Mail (Scotland only)	4.2
Sunday Express	3.4
Sunday Post	2.6
The Observer	2.3
The Independent on Sunday	1.6
Sunday Herald	0.6
Scotland on Sunday	0.4
Sunday Business	0.2
Other	1.6
None of these	41.5

Source: UEA/MORI Risk Survey 2002; Person Weighed Data Set (N= 1547); Multiple answers were possible

People were also asked which party they would you vote for if there were general elections tomorrow (see Table 39). More than a quarter of the respondents indicated that they would vote for Labour “if there were elections tomorrow” (27.3%). The second largest party would be the Conservatives with 17.5%, and the Liberal Democrats would receive 10.1% of the votes. The other parties would only receive a small number of the votes. The Scottish and Welsh nationalists would get 1.5% together, and the Green Party would get 1.3% of the votes. Of the respondents, 0.1% indicated that they would either vote for the UK Independence Party or the Referendum Party. Only 0.7% said they would vote for a different party. However, a large part of the respondents (20.7%) indicated that they were undecided if general elections were to be held tomorrow. Also, 15.2% said they would not vote if general elections were to be held tomorrow.

Table 39. How would you vote if there were general elections tomorrow? (%)

Labour	27.3
Conservative	17.5
Liberal Democrats (Lib Dem)	10.1
Scottish/Welsh Nationalist	1.5
Green Party	1.3
UK Independence Party	0.1
Referendum Party	0.1
Other	0.7
Undecided	20.7
Would not vote	15.2
Refused	5.6

Source: UEA/MORI Risk Survey 2002; Person Weighed Data Set (N= 1547).

The people who were undecided and they who refused to say who they would vote for if there were general elections tomorrow were asked which party they are most likely to support. Table 40 shows that a majority still refused to say whom they would support (21.7%) or said they would not vote (41.8%). Most people were inclined to support Labour (13.9%), followed by the Conservatives (10.5%), and the Liberal Democrats (7.3%). Only a very small number of people indicated that they were most likely to support the Green Party (1.5%) or the Scottish or Welsh Nationalists (0.7%). None of this group of respondents mentioned the UK Independence Party or the Referendum Party as a party whom they tended to support.

Table 40. Which party are you most likely to support? (%)

Labour	13.9
Conservative	10.5

Liberal Democrats (Lib Dem)	7.3
Scottish/Welsh Nationalist	0.7
Green Party	1.5
UK Independence Party	-
Referendum Party	-
Would not vote	41.8
Refused	21.7

Source: UEA/MORI Risk Survey 2002; Person (N=411).

The respondents were also asked to indicate how they would describe the area where they live most of the time (see Table 41). Most people said they live in an urban environment. Just under a third (30.8%) said that they lived in the middle of a town or city, and two fifth of the respondents described the area where they live in as a suburb (40.5%). A small proportion of the sample described the area they live in as “the middle of the countryside (7.5%), whereas a fifth of the respondents (20.0%) said that was on the edge of the countryside.

Table 41. Which of these best describes the area where you live most of the time? (%)

In the middle of a town or city	30.8
In a suburb	40.5
On the edge of the countryside	20.0
In the middle of the countryside	7.5
Don't know	1.2

Source: UEA/MORI Risk Survey 2002; Person Weighed Data Set (N= 1547).

Summary of Some Key Findings

This report presents the initial descriptive findings of a large-scale survey of public attitudes towards science, risk and forms of governance. Based on 1547 face-to-face interviews, conducted in the summer of 2002 for the University of East Anglia by MORI, the main purpose of the survey was to make a comparison between public perceptions of five risk cases that all raise prominent public policy questions within British society today, namely Climate Change, Radiation from Mobile Phones, Radioactive Waste, Genetically Modified Food, and Genetic Testing. The survey also explored people's perceptions of the place of science in society today, and people's attitudes towards the governance of these five risk cases (including confidence in risk regulation and trust in sources of information). As such, the study represents one of the largest and most substantive surveys of public risk perception that has been undertaken in Great Britain in recent years. The broad scope of the study means that a wide range of data have been produced. This section highlights some of the main findings of the study.

Risk in Context

The first aim of the present study was to provide detailed *comparative quantitative data and analysis* of the five main risk issues. First, the five risk cases were put into context by comparing them to various personal and social issues. Although *all* of the issues (including the risk cases) were to some extent important to people, in relative terms the risk cases were generally less important than most of the other personal and social issues. Indeed, four of the five risk cases were amongst the least important of the issues. Only Radioactive Waste as a risk case was higher, being in the middle of the overall rankings of importance. Moreover, the most important issues were mainly personal (such as Health, Partner and Family, and Personal Safety). Social issues (like Population Growth, World Poverty, and Human Rights) were ranked of less importance, with Religion the least important. A high negative correlation was found between the average importance ratings and the standard deviations of the various issues. This means that, whereas the highest ranked issues were important to almost all of people, the least important issues, like Religion (and most of the risk cases except Radioactive Waste), were important to only a subset of people. However, although they may be relatively unimportant compared to other personal and social issues, people nevertheless appeared very interested in the risk cases, with a large majority of people indicating that they were fairly or very interested in all five risk cases.

Public Perceptions of the Five Risks Cases

The five risk cases were evaluated on a wide range of risk related themes. These evaluations paint a fairly consistent picture of people's perceptions of these risk issues as follows:

- Radioactive Waste is the most contentious risk case. This risk case was evaluated most negatively on most items. For example, it appeared that about half of the respondents felt that Radioactive Waste was a very bad thing. It was also seen as having the lowest benefits and the highest risks of all five cases. Concern about Radioactive Waste was the highest of the five risk cases, and it was also seen as the least acceptable risk case.
- By contrast, Genetic Testing (described as tests to discover whether people have a range of inherited diseases or disorders) occupied the other side of the spectrum, and was in itself quite a distinct risk case. In contrast to the other risk cases, it was generally seen as a good thing, and was the most acceptable risk with relatively lower perceived risks and higher perceived benefits. This went along with lower concern.

Radiation from Mobile Phones, Climate Change, and GM Food were intermediate cases, with the results on these risk cases less clear-cut:

- Although the acceptability of Radiation from Mobile Phones was low and this was generally seen as a bad thing, people did not seem over-concerned about it. Moreover, a sizeable minority indicated that the benefits of the *use* of mobile phones outweigh the risks. The latter is also reflected in judgements of relatively low perceived risks and high perceived benefits.
- Climate Change was generally seen as a bad thing, with the benefits of Climate Change seen as low and the risks as high. Consequently, concern was high, whilst overall Climate Change was unacceptable to most people.
- Perhaps surprisingly, Genetically Modified Food was relatively *positively* evaluated (certainly when compared to Climate Change and Radioactive Waste), although it is important to note that a substantial minority still felt that GM food is a bad thing. Nevertheless, most people appeared neutral about GM food by indicating that GM food is neither a good nor a bad thing. Moreover, people appeared to be less concerned about GM food than about the other risk cases, with perceived risks and benefits compared to the other risk cases judged as intermediate. However, across the whole sample more people thought the risks outweigh the benefits, and the acceptability of GM Food was moderately low

Trust

In the field of risk research there is a growing recognition that trust plays an important role in the acceptability and communication of risks, and therefore took a central position in the present study. There were some relative differences in trust in various information sources to tell the truth. However, the general pattern was similar in the five risk cases.

- On average, consumer rights and environmental organisations, friends and family, doctors, as well as scientists working for environmental organisations and scientists working for universities were trusted the most in each of the five risk cases.
- The least trusted information sources were the National Government and the European Union, together with relevant businesses and industries relevant to each risk issue, as well as scientists working for these industries.

Although there were some major differences in trust in various information sources, the differences between them were much smaller when people were asked to indicate how much they agreed that the same organisation or social group should be involved in making decisions about the five risk cases. In particular, people's responses to this question were well above the scale midpoint for all groups of people and organisations (the only exception being Genetic Testing, where people felt insurance companies should not be involved in making decisions). Although most people agreed that the general public should be involved in making policy decisions about the risks, people were less keen to be personally consulted in such decisions.

People were also asked to evaluate governmental policy on each of the five risk cases. Interestingly, there were only minor differences in evaluation of the government between the five risk cases. This suggests that people *evaluated government policy as a whole*, rather than specific governmental policy or decisions on each of the five risk cases. The evaluation of government could be described by two underlying and independent dimensions, namely with a *general trust* and a *scepticism* dimension (contrary to previous research, which has highlighted *competence* and *care for the public interest* as independent dimensions). The second dimension found here reflects a sceptical view on how risk policies are brought about (and comprised scales measuring views that

the government distorts facts in its favour, changes policies without good reasons, and is thought to be too influenced by industry). The results show that:

- Overall, general trust in government was low (and well below the scale mid-point). As a part of this people felt that the government was not responsive to what ordinary people thought, or provided enough information about risks to the public.
- By contrast, scepticism in government handling of the risk cases was relatively high (above the scale mid-point).
- Respondents also indicated they had relatively low social trust (effectively a dissimilarity of social values) in government policy towards the risks.

Confidence in risk regulation was low across the five cases. Although more people felt that current rules and regulations in the UK are sufficient to control Genetic Testing than to control Climate Change and GM Food, the differences between the risk cases were small. Low confidence in current risk regulation probably contributed to the finding that people felt that there is need for organisations that are separate from government and industry to regulate the five risks.

Science in Society

Considering that many risks involve or emerge from scientific developments, a considerable part of this survey was focussed on beliefs about scientists and science. Perhaps surprisingly given the detailed risk-specific and governance findings highlighted above, people overall held positive views on the role of science in society. In particular, respondents felt that science makes a good contribution to society. However, it was also found that people felt the funding of science is becoming too commercialised, and as a result the independence of scientists is increasingly being put at risk. Moreover, people expressed support for more public control over science.

- Interestingly, there were no major differences in trust in scientists across the five risk cases. This suggests that trust in “scientists” is mainly determined by a judgement about the organisation they are working for, possibly based upon knowledge of its agenda, roles and past history.
- Confirming other research, people trusted scientists working for universities and scientist working for environmental organisations most.
- People tended to trust scientists working for industry least.
- On average, people neither trusted nor distrusted scientists working for the government.

In Conclusion

This report presented the main descriptive findings of a detailed empirical study of public attitudes towards science, risk and forms of governance. A quantitative survey that was administered in Britain in summer 2002 has produced a rich dataset exploring five risk cases on a wide range of risk-related themes, many of which hold important lessons for risk policy. This first report is primarily descriptive and therefore highlights only a number of the overall findings of the study. The basic dataset allows for more detailed statistical analyses focussing on the five risk cases and the relationships between risk judgements and various topics covered by this study.

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APPENDIX A

Attitudes to Social Issues

Topline

28/08/02

- This document shows topline findings from a survey conducted by MORI on behalf of The Centre for Environmental Risk, The University of East Anglia
- Results are based on 1,547 interviews conducted among the general public
- There were five versions of the questionnaire covering the following topics: climate change (321 interviews), radiation from mobile phones (319 interviews), radioactive waste (306 interviews), genetically modified food, (296 interviews) and genetic testing (305 interviews)
- Fieldwork was conducted by face-to-face in-home between 6 July and 31 July 2002
- Where results do not sum to 100% this may be due to multiple responses, computer rounding or the exclusion of don't knows/not stated
- Results are based on all respondents, unless otherwise stated
- The symbol * indicates a score which is less than one per cent but not zero
- Data are weighted to the national profile

Good morning/afternoon/evening. I'm from MORI, the market and opinion research company. We're conducting a survey on various social issues. Would you be willing to be interviewed? The interview will last approximately 30 minutes.

Q1. SHOWCARD A I am going to read out some issues and for each one I would like you to tell me how important or not important it is to you, using the number on the scale which applies, where '4' equals very important and '0' equals not at all important. READ OUT a – u. ROTATE ORDER AND TICK START. SINGLE CODE ONLY FOR EACH.

Base a-t: All (1,547)

Base u: All who took part in each version of the questionnaire

		Very Important	Neither/nor	Not at all important	Don't know		
		4	3	2	1	0	
		%	%	%	%	%	
a	Animal welfare	46	30	17	4	3	1
b	Being independent	69	23	6	*	*	1
c	The economy	46	34	14	3	2	1
d	Education	76	16	5	1	1	1
e	Environmental protection	56	32	10	1	*	1
f	Excitement/Fun	40	35	18	4	2	1
g	Having a comfortable life	60	31	7	1	*	1
h	Your health	86	10	2	*	*	1
i	Law and order	76	19	4	1	*	*
j	Partner and family	85	10	4	1	1	*
k	Personal finance	57	33	8	1	1	*
l	Personal safety	75	21	4	*	*	*
m	Population growth	26	32	32	6	4	2
n	Your privacy	68	24	8	1	*	*

o	Religion	17	20	33	11	18	*
p	Social relations/Friends	54	38	8	1	*	1
q	Tackling human rights	36	37	19	4	2	1
r	Tackling world poverty	40	35	19	4	3	1
s	Terrorism	60	24	11	2	1	1
t	Work	42	31	14	3	8	2
u	Climate change (321)	30	36	22	6	5	2
u	Radiation from mobile phones handsets (319)	19	25	37	8	9	3
u	Radioactive waste (306)	53	23	17	5	2	1
u	Genetically modified food (296)	20	21	34	12	10	4
u	Genetic Testing (305)	26	27	29	9	5	4

Q2. SHOWCARD How concerned or not are you about climate change/radiation from mobile phones/radioactive waste/genetically engineered food/genetic testing? Please read out the number on the scale which applies, where '4' equals very concerned and '0' equals not at all concerned. SINGLE CODE ONLY

	Very concerned		Neither/Nor		Not at all concerned	No opinion
	4	3	2	1	0	
Base: All who took part in each version of the questionnaire	%	%	%	%	%	%
Climate change (321)	27	34	25	5	7	2
Radiation from mobile phones handsets (319)	13	28	31	10	15	2
Radioactive waste (306)	38	27	25	5	4	2
Genetically engineered food (296)	17	20	31	11	16	4
Genetic testing (305)	22	27	29	9	11	2

Questions 3-6 to be coded by University of East Anglia.

Q3. Which three things, if any, come to your mind when you hear the phrase ‘climate change’/mobile phone handsets/radioactive waste/genetically engineered food/genetic testing? PROBE FULLY AND WRITE IN UP TO THREE MENTIONS.

ANY ANSWER (WRITE IN AND CODE '1, 2 & 3 ACCORDINGLY)

First mention: 1

Second mention: 2

Third mention: 3

None/no answer TO Q7 GO 4

Don't know TO Q7 GO 5

ASK Q4 FOR FIRST MENTIONED AT Q3. IF NONE/NO ANSWER OR DON'T KNOW AT Q3 GO TO Q7.

Q4. And do you think ...[INSERT FIRST MENTION]...is a good thing, a bad thing or neither a good nor a bad thing? SINGLE CODE ONLY.

Good	1
Bad	2
Neither good nor bad	3
Don't know	4

ASK Q5 FOR SECOND MENTIONED AT Q3. IF NONE/NO ANSWER, DON'T KNOW OR NO SECOND MENTION AT Q3 GO TO Q7.

Q5. And do you think ...[INSERT SECOND MENTION]...is a good thing, a bad thing or neither a good nor a bad thing? SINGLE CODE ONLY.

Good	1
Bad	2
Neither good nor bad	3
Don't know	4

ASK Q6 FOR THIRD MENTIONED AT Q3. IF NONE/NO ANSWER, DON'T KNOW OR NO THIRD MENTION AT Q3 GO TO Q7.

Q6. And do you think ...[INSERT THIRD MENTION]...is a good thing, a bad thing or neither a good nor a bad thing? SINGLE CODE ONLY.

Good	1
Bad	2
Neither good nor bad	3
Don't know	4

GENERAL ISSUES

ASK ALL

Q7. SHOWCARD C (R) Next we would like to explore your views on some general issues. To what extent do you agree or disagree with the following statements? READ OUT a – t. ROTATE ORDER. TICK START. SINGLE CODE ONLY FOR EACH.

		Strongly agree	Tend to agree	Neither agree nor disagree	Tend to disagree	Strongly disagree	No opinion
		%	%	%	%	%	%
<input type="checkbox"/>	a To me, personal fulfilment is all about being successful	10	34	24	25	6	1
	b It is important to me to preserve my customs and heritage	23	41	24	9	1	1
	c Sometimes I would like to withdraw from society	9	27	19	27	16	2
	d Economic growth is threatening the world	12	34	29	15	4	5
	e In my work, I strive to be the best	25	36	20	7	1	10
	f I sometimes feel pessimistic about society today	20	46	18	11	2	3
<input type="checkbox"/>	g Those who are disciplined and hard-working are wasting their lives	3	9	16	39	31	2
	h British culture is important to me	24	41	24	8	3	1
	i It is important to me to be in a respected position in society	15	35	31	14	3	2
	j Religion should play a bigger role in society	9	18	32	21	17	2
	k I don't believe voting makes much of a difference	14 9 ¹³	28 9	17 3	26 23	13 55	2 1
	l In the Western world, there is too much consumption of goods	22	45	21	8	1	3
<input type="checkbox"/>	m Modern society creates more problems than it can solve	20	46	21	11	2	1
	n It is important to me to have a sense of	31	51	12	3	*	1

¹³ Source: 1,801 adults aged 18+ were interviewed for the Electoral Commission between 9 and 15 May 2001 (just after the general election).

	achievement						
o	Society has little to offer me	5	16	23	40	15	1
p	Radical changes are needed to achieve a better society	22	42	23	8	2	2
q	Risk-takers are generally more successful	12	40	29	14	2	3
<input type="checkbox"/> r	Most people are trustworthy	4	41	24	23	8	1
s	Tradition is important to me	22	40	24	10	2	2
t	The government is not interested in the views of people like me	24	30	22	19	4	2

Q8. SHOWCARD C (R) AGAIN Now thinking about science, to what extent do you agree or disagree with the following statements? READ OUT a – m. ROTATE ORDER. TICK START. SINGLE CODE ONLY FOR EACH

		Strongly agree	Tend to agree	Neither agree nor disagree	Tend to disagree	Strongly disagree	No opinion
		%	%	%	%	%	%
<input type="checkbox"/>	a On the whole, science will make our lives easier	15	57	18	7	2	2
	b I would like more influence over the type of scientific research that is done	10	35	34	16	3	3
		26 ¹⁴	27	12	24	8	3
	c Scientists should listen more to what ordinary people think	17	50	19	10	2	3
	d Science makes a good contribution to society	20	60	15	2	1	2
	e Science does more harm than good	2	10	31	43	11	3
<input type="checkbox"/>	f Scientists often try new things without thinking about the consequences	14	38	26	16	3	4
	g Science seems to be out of control	4	20	31	34	8	3
	h We put too much trust in science	7	33	29	25	4	3
	i The independence of scientists is often put at risk by the interest of their funders	14	46	2	5	1	7
	j We need science to make further progress in knowledge	28	57	9	3	*	2
	k The funding of science is becoming too commercialised	13	41	30	9	1	6
<input type="checkbox"/>	l There is so much conflicting information about science, that it is difficult to know what to believe	18	51	20	7	1	3
	m We need scientists in	40	49	7	1	*	1

¹⁴ Source: Science & the Public for the Royal Society, March 2001. MORI interviewed 1,001 adults aged 16+.

ENVIRONMENTAL ISSUES

Q9. SHOWCARD C (R) AGAIN Thinking now about environmental issues, to what extent do you agree or disagree with the following statements? READ OUT a – o. ROTATE ORDER. TICK START. SINGLE CODE ONLY FOR EACH

		Strongly agree	Tend to agree	Neither agree nor disagree	Tend to disagree	Strongly disagree	No opinion
		%	%	%	%	%	%
<input type="checkbox"/> a	We are approaching the limit of the number of people the earth can support	20	39	20	14	3	5
b	Humans have the right to modify the natural environment to suit their needs	4	30	23	30	10	3
c	When humans interfere with nature it often produces disastrous consequences	28	44	19	5	1	3
d	Human ingenuity will ensure that we keep the earth liveable	7	45	26	16	3	4
<input type="checkbox"/> e	Humans are severely abusing the environment	33	46	13	5	1	2
f	The earth has plenty of natural resources if we just learn how to develop them	26	51	11	8	2	2
g	Plants and animals have the same rights as humans to exist	30	41	15	9	2	2
h	Nature is strong enough to cope with the impact of modern industrial nations	3	18	20	39	17	3
<input type="checkbox"/> i	Despite man’s intelligence and creativity, humans are still subject to the laws of nature	26	54	16	2	*	3
j	The so-called “ecological crisis” facing humankind has been greatly exaggerated	4	21	28	32	9	6
k	The earth has only limited room and resources	25	52	13	7	1	2
l	Humans were meant to rule over the rest of nature	4	17	24	32	20	3

<input type="checkbox"/> m	The balance of nature is very delicate and easily upset	31	51	12	3	1	3
n	Humans will eventually be able to control nature	2	18	18	34	24	4
o	If there is no change in the world, we will soon experience a major environmental crisis	28	43	18	7	1	3

Q10a SHOWCARD D (R) **And what would you say is your level of interest in each of the following issues that I am about to read out? READ OUT a – e. ALTERNATE ORDER AND TICK START. SINGLE CODE ONLY FOR EACH**

		Very interested	Fairly interested	Not very interested	Not at all interested	No opinion
		%	%	%	%	%
<input type="checkbox"/> a	Climate change	27	49	19	5	*
b	Genetically modified food	22	38	25	14	1
c	Genetic testing (i.e. tests to discover whether people have a range of inherited diseases or disorders)	34	47	12	5	2
d	Radioactive waste	32	38	20	7	2
<input type="checkbox"/> e	Radiation from mobile phone handsets	21	37	26	13	3

Q10b SHOWCARD E (R) **On the whole, how would you describe your feelings about the following issues..... READ OUT a – e. ALTERNATE ORDER AND TICK START. SINGLE CODE ONLY FOR EACH**

		Very good thing	Fairly good thing	Neither good/nor bad thing	Fairly bad thing	Very bad thing	No opinion
		%	%	%	%	%	%
<input type="checkbox"/> a	Climate change	2	10	26	38	21	4
b	Genetically modified food	2	13	35	25	19	5
c	Genetic testing (i.e. tests to discover whether people have a range of inherited diseases or disorders)	19	37	23	11	6	4
d	Radioactive waste	2	4	13	29	46	5
<input type="checkbox"/> e	Radiation from mobile phone handsets	1	4	26	38	24	7

CLIMATE CHANGE

And now I would like to ask you some questions about climate change. By climate change I mean global warming and other changes in global weather patterns. Most scientists now believe that emissions from cars and factories, and from other uses of energy can cause climate change (including global warming).

Q11 SHOWCARD F Thinking about the following groups of people you know, in general, how concerned or not do you think they are about climate change? Please read out the number on the scale which applies, where '4' equals very concerned and '0' equals not at all concerned. READ OUT a - c. SINGLE CODE ONLY FOR EACH

	Very concerned	3	Neither/n or	2	1	Not at all concerned	0	No opinion/D on't know	It depends	Not applicable
Base: All climate change respondents (321)	4 %	3 %	2 %	1 %	0 %			%	%	%
a Friends	16	33	25	7	11	6	1	1		
b Family	21	34	24	7	7	5	*	1		
c People you work with	9	22	18	7	7	5	2	31		

MOBILE PHONES

And now I would like to ask you some questions about mobile phones.

Q11 SHOWCARD F Thinking about the following groups of people you know, in general, how concerned or not do you think they are about radiation from mobile phone handsets? Please read out the number on the scale which applies, where '4' equals very concerned and '0' equals not at all concerned. READ OUT a - c. SINGLE CODE ONLY FOR EACH.

	Very concerned	3	Neither/n or	2	1	Not at all concerned	0	No opinion/D on't know	It depends	Not applicable
Base: All mobile phone respondents (319)	4 %	3 %	2 %	1 %	0 %			%	%	%
a Friends	7	16	35	11	26	5	0	1		
b Family	10	16	36	11	21	4	0	2		
c People you work with	4	10	28	11	21	5	1	21		

RADIOACTIVE WASTE

And now I would like to ask you some questions about radioactive waste. This country's radioactive waste is produced primarily as a result of generating electricity in nuclear power stations in Britain.

Q11 SHOWCARD F Thinking about the following groups of people you know, in general, how concerned or not do you think they are about radioactive waste? Please read out the number on the scale which applies, where '4' equals very concerned and '0' equals not at all concerned. READ OUT a - c. SINGLE CODE ONLY FOR EACH.

	Very concerned	3	Neither/n or	2	1	Not at all concerned	0	No opinion/Don't know	It depends	Not applicable
Base: All respondents asked about radioactive waste (306)	4 %	3 %	2 %	1 %	0 %			%	%	%
a Friends	18	23	33	7	12	6	1	1		
b Family	22	23	33	7	8	6	1	1		
c People you work with	11	17	28	4	9	7	1	24		

GM FOOD

And now I would like to ask you some questions about genetically modified food.

Q11 SHOWCARD F Thinking about the following groups of people you know, in general, how concerned or not do you think they are about genetically modified food? Please read out the number on the scale which applies, where '4' equals very concerned and '0' equals not at all concerned. READ OUT a - c. SINGLE CODE ONLY FOR EACH.

	Very concerned	3	Neither/n or	2	1	Not at all concerned	0	No opinion/Don't know	It depends	Not applicable
Base: All GM food respondents (296)	4 %	3 %	2 %	1 %	0 %			%	%	%
a Friends	10	20	32	6	14	16	*	1		
b Family	13	21	31	6	13	14	*	2		
c People you work with	6	12	28	6	9	13	*	26		

GENETIC TESTING

And now I would like to ask you some questions about genetic testing. By genetic testing I mean tests which can now be carried out to discover whether people have a range of inherited disorders and diseases.

Q11 SHOWCARD F Thinking about the following groups of people you know, in general, how concerned or not do you think they are about genetic testing? Please read out the number on the scale which applies, where '4' equals very concerned and '0' equals not at all concerned. READ OUT a - c. SINGLE CODE ONLY FOR EACH

	Very concerned	3	Neither/n or	2	1	Not at all concerned	0	No opinion/ Don't know	It depends	Not applicable
	4	3	2	1	0					
	%	%	%	%	%	%	%	%	%	%
Base: All genetic testing respondents (305)										
a Friends	15	24	33	12	9	7	1	0		
b Family	22	26	31	10	5	5	*	*		
c People you work with	10	17	25	9	5	5	1	27		

CLIMATE CHANGE

Q12a SHOWCARD G Thinking about the activities which can cause climate change (car use, factories, energy use), how would you assess the benefits, if any, of these activities for... READ OUT a AND b. Please read out the number on the scale that applies where 6 equals very high benefits and 0 equals no benefits . ALTERNATE ORDER AND TICK START. SINGLE CODE ONLY

	Very high benefits			Some benefits			No Benefits	No opinion/D on't know
	6	5	4	3	2	1	0	
	%	%	%	%	%	%	%	%
Base: All climate change respondents (321)								
<input type="checkbox"/> a ...British Society as a whole	7	10	14	37	8	3	10	10
<input type="checkbox"/> b ...Yourself	8	8	14	31	11	5	14	11

Q12b SHOWCARD G AGAIN Thinking about possible future changes to the British climate, how would you assess the benefits, if any, for... READ OUT a AND b. Please read out the number on the scale that applies where 6 equals very high benefits and 0 equals no benefits ALTERNATE ORDER AND TICK START. SINGLE CODE ONLY FOR EACH

	Very high benefits			Some benefits			No Benefits	No opinion/D on't know
	6	5	4	3	2	1	0	
	%	%	%	%	%	%	%	%
Base: All climate change respondents (321)								
<input type="checkbox"/> a ...British Society as a whole	4	7	11	29	13	6	17	15
<input type="checkbox"/> b ...Yourself	4	4	12	28	14	6	18	15

Q13a SHOWCARD H How would you assess the risks, if any, to human health from climate change for... . READ OUT a AND b. Please read out the number on the scale that applies where 6 equals very high risks and 0 equals no risks. ALTERNATE ORDER AND TICK START. SINGLE CODE ONLY FOR EACH

	Very high risks			Some risks			No risks	No opinion/D on't know
	6	5	4	3	2	1	0	

Base: All climate change respondents (321)		%	%	%	%	%	%	%	
<input type="checkbox"/> a	...British Society as a whole	16	19	15	34	4	1	2	10
<input type="checkbox"/> b	...Yourself	14	17	15	31	8	2	3	10

Q13b SHOWCARD H AGAIN **How would you assess the risks, if any, to the environment from climate change? Please read out the number on the scale that applies where 6 equals very high and 0 equals no risk.. SINGLE CODE ONLY**

	Very high risks			Some risks			No risks	No opinion/Don't know
	6	5	4	3	2	1	0	
	%	%	%	%	%	%	%	%
Base: All climate change respondents (321)								
Climate change	25	21	12	28	5	*	1	9

MOBILE PHONES

Q12 SHOWCARD G How would you assess the benefits, of using mobile phone handsets for... READ OUT a AND b.: Please read out the number on the scale that applies where 6 equals very high benefits and 0 equals no benefits. ALTERNATE ORDER AND TICK START. SINGLE CODE ONLY FOR EACH.

		Very high benefits			Some benefits			No benefits	No opinion/D on't know
		6	5	4	3	2	1	0	
Base: All mobile phone respondents (319)		%	%	%	%	%	%	%	%
<input type="checkbox"/>	a <u>...British Society as a whole</u>	15	15	21	40	4	1	3	1
<input type="checkbox"/>	b <u>...Yourself</u>	14	12	16	31	6	3	16	2

Q13a SHOWCARD H How would you assess the risks, if any, to human health from radiation from mobile phone handsets for... READ OUT a AND b. Please read out the number on the scale that applies where 6 equals very high risks and 0 equals no risks. ALTERNATE ORDER AND TICK START. SINGLE CODE ONLY FOR EACH.

		Very high risks			Some risks			No risks	No opinion/D on't know
		6	5	4	3	2	1	0	
Base: All mobile phone respondents (319)		%	%	%	%	%	%	%	%
<input type="checkbox"/>	a <u>...British Society as a whole</u>	11	11	18	42	8	2	4	5
<input type="checkbox"/>	b <u>...Yourself</u>	7	6	10	33	11	12	16	6

Q13b SHOWCARD H AGAIN How would you assess the risks, if any, to the environment from radiation from mobile phone handsets? Please read out the number on the scale that applies where 6 equals very high and 0 equals no risk. SINGLE CODE ONLY

		Very high risks			Some risks			No risks	No opinion/D n't know
		6	5	4	3	2	1	0	
Base: All mobile phone respondents (319)		%	%	%	%	%	%	%	%
	Radiation from mobile phone handsets	7	8	13	41	12	5	9	5

RADIOACTIVE WASTE

Q12a SHOWCARD G G Thinking about the activities which generate radioactive waste (nuclear power production), how would you assess the benefits, if any, of this activity for... READ OUT a AND b. Please read out the number on the scale that applies where 6 equals very high benefits and 0 equals no benefits. ALTERNATE ORDER AND TICK START. SINGLE CODE ONLY FOR EACH.

	Very high benefits			Some benefits			No Benefits	No opinion/D on't know
	6	5	4	3	2	1	0	
	%	%	%	%	%	%	%	%
Base: All respondents asked about radioactive waste (306)								
<input type="checkbox"/> a <u>...British Society as a whole</u>	7	5	17	39	6	3	15	7
<input type="checkbox"/> b <u>...Yourself</u>	5	5	13	36	10	4	20	8

Q12b SHOWCARD G AGAIN How would you assess the benefits, if any, of having radioactive waste for... READ OUT a AND b.: Please read out the number on the scale that applies where 6 equals very high benefits and 0 equals no benefits. ALTERNATE ORDER. SINGLE CODE ONLY

	Very high benefits			Some benefits			No Benefits	No opinion/D on't know
	6	5	4	3	2	1	0	
	%	%	%	%	%	%	%	%
Base: All respondents asked about radioactive waste (306)								
<input type="checkbox"/> a <u>...British Society as a whole</u>	2	2	4	19	12	8	46	8
<input type="checkbox"/> b <u>...Yourself</u>	3	1	3	16	9	8	53	8

Q13a SHOWCARD H How would you assess the risks, if any, to human health from radioactive waste for... READ OUT a AND b Please read out the number on the scale that applies where 6 equals very high risks and 0 equals no risks.. ALTERNATE ORDER AND TICK START. SINGLE CODE ONLY FOR EACH.

	Very high Risks			Some risks			No risks	No opinion/D on't know
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Base: All respondents asked about radioactive waste (306)		6 %	5 %	4 %	3 %	2 %	1 %	0 %	%
<input type="checkbox"/> a	...British Society as a whole	35	11	14	28	4	2	1	4
<input type="checkbox"/> b	...Yourself	33	10	9	30	8	3	5	4

Q13b SHOWCARD H AGAIN **How would you assess the risks, if any, to the environment from radioactive waste? Please read out the number on the scale that applies where 6 equals very high risks and 0 equals no risk. SINGLE CODE ONLY FOR EACH.**

	Very high risks			Some risks			No Risks	No opinion/D on't know
	6	5	4	3	2	1	0	
	%	%	%	%	%	%	%	%
Base: All respondents asked about radioactive waste (306)								
Radioactive waste	42	15	11	23	3	1	1	3

GM FOOD

Q12 SHOWCARD G How would you assess the **benefits**, if any, of genetically modified food for:... READ OUT a AND b. Please read out the number on the scale that applies where **6 equals very high benefits and 0 equals no benefits**. ALTERNATE ORDER AND TICK START. SINGLE CODE ONLY FOR EACH.

	Very high benefits	5	4	Some benefits	2	1	No Benefits	No opinion/Don't know
	6			3			0	
	%	%	%	%	%	%	%	%
Base: All GM food respondents (296)								
<input type="checkbox"/> a ...British Society as a whole	2	7	10	36	9	5	17	14
<input type="checkbox"/> b ...Yourself	*	3	7	31	9	5	28	17

Q13a SHOWCARD H How would you assess the **risks**, if any, to human health from genetically modified food for... READ OUT a AND b. Please read out the number on the scale that applies where **6 equals very high risks and 0 equals no risks**. ALTERNATE ORDER AND TICK START. SINGLE CODE ONLY FOR EACH.

	Very high Risks	5	4	Some risks	2	1	No Risks	No opinion/Don't know
	6			3			0	
	%	%	%	%	%	%	%	%
Base: All GM food respondents (296)								
<input type="checkbox"/> a ...British Society as a whole	12	8	11	40	6	3	3	17
<input type="checkbox"/> b ...Yourself	12	5	9	37	10	3	5	19

Q13b SHOWCARD H How would you assess the **risks**, if any, to the environment from genetically modified food? Please read out the number on the scale that applies where **6 equals very high risks and 0 equals no risk**. SINGLE CODE ONLY

	Very high Risks	5	4	Some risks	2	1	No Risks	No opinion/Don't know
	6			3			0	
	%	%	%	%	%	%	%	%
Base: All GM food respondents (296)								

Genetically modified food	15	10	17	35	3	2	2	17
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GENETIC TESTING

Q12 SHOWCARD G How would you assess the benefits, if any, of genetic testing for...
 READ OUT a AND b.: Please read out the number on the scale that applies where 6 equals very high benefits and 0 equals no benefits. ALTERNATE ORDER AND TICK START. SINGLE CODE ONLY

		Very high Benefits			Some benefits			No benefits	No opinion/D on't know
		6	5	4	3	2	1	0	
Base: All genetic testing respondents (305)		%	%	%	%	%	%	%	%
<input type="checkbox"/> a	...British Society as a whole	18	12	17	41	2	2	3	6
<input type="checkbox"/> b	...Yourself	13	9	11	38	5	3	14	7

Q13a SHOWCARD H How would you assess the risks, if any, to human health from genetic testing for... READ OUT a AND b. Please read out the number on the scale that applies where 6 equals very high risks and 0 equals no risks.. ALTERNATE ORDER AND TICK START. SINGLE CODE ONLY

		Very high risks			Some risks			No risks	No opinion/D on't know
		6	5	4	3	2	1	0	
Base: All genetic testing respondents (305)		%	%	%	%	%	%	%	%
<input type="checkbox"/> a	...British Society as a whole	9	8	18	48	5	2	5	6
<input type="checkbox"/> b	...Yourself	7	6	13	44	9	2	13	7

Q13b SHOWCARD H AGAIN How would you assess the risks, if any, of the use of information from genetic testing without consent..... READ OUT a AND b Please read out the number on the scale that applies where 6 equals very high risks and 0 equals no risks.. ALTERNATE ORDER AND TICK START. SINGLE CODE ONLY FOR EACH.

		Very high risks			Some risks			No risks	No opinion/D on't know
		6	5	4	3	2	1	0	
Base: All genetic testing respondents (305)		%	%	%	%	%	%	%	%
<input type="checkbox"/> a	...British Society as a whole	30	15	15	27	4	2	2	6

b

...Yourself

26

10

15

28

4

2

7

7

CLIMATE CHANGE

- Q14 SHOWCARD I (R) **From what you know or have heard about climate change, on balance, which of these statements, if any, most closely reflects your own opinion? Please just read out the letter that applies. SINGLE CODE ONLY**

	Base: All climate change respondents (321)	%
A	The benefits of climate change far outweigh the risks	5
B	The benefits of climate change slightly outweigh the risks	9
C	The benefits and risks of climate change are about the same	22
D	The risks of climate change slightly outweigh the benefits	21
E	The risks of climate change far outweigh the benefits	32
	None of these	1
	Don't know	10

MOBILE PHONES

- Q14 SHOWCARD I (R) **From what you know or have heard about mobile phone handsets, on balance, which of these statements, if any, most closely reflects your own opinion? Please just read out the letter that applies. SINGLE CODE ONLY**

	Base: All mobile phone respondents (319)	%
A	The benefits of mobile phone handsets far outweigh the risks	19
B	The benefits of mobile phone handsets slightly outweigh the risks	23
C	The benefits and risks of mobile phone handsets are about the same	35
D	The risks of mobile phone handsets slightly outweigh the benefits	8
E	The risks of mobile phone handsets far outweigh the benefits	9
	None of these	1
	Don't know	6

RADIOACTIVE WASTE

Q14 SHOWCARD I (R) **From what you know or have heard about radioactive waste, on balance, which of these statements, if any, most closely reflects your own opinion? Please just read out the letter that applies. SINGLE CODE ONLY**

	Base: All respondents asked about radioactive waste (306)	%
A	The benefits of radioactive waste far outweigh the risks	7
B	The benefits of radioactive waste slightly outweigh the risks	13
C	The benefits and risks of radioactive waste are about the same	21
D	The risks of radioactive waste slightly outweigh the benefits	23
E	The risks of radioactive waste far outweigh the benefits	30
	None of these	2
	Don't know	4

GM FOOD

Q14 SHOWCARD I (R) **From what you know or have heard about genetically modified food, on balance, which of these statements, if any, most closely reflects your own opinion? Please just read out the letter that applies. SINGLE CODE ONLY**

	Base: All GM food respondents (296)	%
A	The benefits of genetically modified food far outweigh the risks	5
B	The benefits of genetically modified food slightly outweigh the risks	11
C	The benefits and risks of genetically modified food are about the same	29
D	The risks of genetically modified food slightly outweigh the benefits	18
E	The risks of genetically modified food far outweigh the benefits	21
	None of these	2
	Don't know	14

GENETIC TESTING

- Q14 SHOWCARD I (R) **From what you know or have heard about genetic testing, on balance, which of these statements, if any, most closely reflects your own opinion? Please just read out the letter that applies. SINGLE CODE ONLY**

	Base: All genetic testing respondents (305)	%
A	The benefits of genetic testing far outweigh the risks	15
B	The benefits of genetic testing slightly outweigh the risks	23
C	The benefits and risks of genetic testing are about the same	29
D	The risks of genetic testing slightly outweigh the benefits	15
E	The risks of genetic testing far outweigh the benefits	12
	None of these	1
	Don't know	6

CLIMATE CHANGE

- Q15 SHOWCARD J (R) **On the whole, how acceptable or unacceptable is climate change to you? Just read out the letter that applies. SINGLE CODE ONLY**

	Base: All climate change respondents (321)	%
A	Very acceptable	3
B	Fairly acceptable	16
C	Neither acceptable nor unacceptable	29
D	Fairly unacceptable	25
E	Very unacceptable	18
	No opinion	8

MOBILE PHONES

- Q15 SHOWCARD J (R) **On the whole, how acceptable or unacceptable is radiation from mobile phone handsets to you? Just read out the letter that applies SINGLE CODE ONLY**

	Base: All mobile phone respondents (319)	%
A	Very acceptable	2
B	Fairly acceptable	16
C	Neither acceptable nor unacceptable	36

D	Fairly unacceptable	20
E	Very unacceptable	21
	No opinion	6

RADIOACTIVE WASTE

Q15 SHOWCARD J (R) **On the whole, how acceptable or unacceptable is radioactive waste to you? Just read out the letter that applies SINGLE CODE ONLY**

	Base: All respondents asked about radioactive waste (306)	%
A	Very acceptable	2
B	Fairly acceptable	12
C	Neither acceptable nor unacceptable	20
D	Fairly unacceptable	35
E	Very unacceptable	28
	No opinion	3

GM FOOD

Q15 SHOWCARD J (R) **On the whole, how acceptable or unacceptable is genetically modified food to you? Just read out the letter that applies SINGLE CODE ONLY**

	Base: All GM food respondents (296)	%
A	Very acceptable	3
B	Fairly acceptable	19
C	Neither acceptable nor unacceptable	34
D	Fairly unacceptable	16
E	Very unacceptable	20
	No opinion	8

GENETIC TESTING

Q15 SHOWCARD J (R) **On the whole, how acceptable or unacceptable is genetic testing to you? Just read out the letter that applies SINGLE CODE ONLY**

	Base: All genetic testing respondents (305)	%
A	Very acceptable	13
B	Fairly acceptable	40
C	Neither acceptable nor unacceptable	24
D	Fairly unacceptable	13
E	Very unacceptable	7
	No opinion	4

CLIMATE CHANGE

Q16 SHOWCARD K (R) To what extent do you agree or disagree with the following statements? READ OUT a - j. ROTATE ORDER AND TICK START. SINGLE CODE ONLY FOR EACH.

		Strongly agree	Tend to agree	Neither agree nor disagree	Tend to disagree	Strongly disagree	No opinion
	Base: All climate change respondents (321)	%	%	%	%	%	%
<input type="checkbox"/>	a Climate change has unknown consequences	32	48	10	6	1	3
	b Climate change poses risks to future generations	39	46	10	2	*	4
	c I have mixed feelings about climate change	10	42	21	17	7	3
	d I have moral concerns about climate change	14	31	31	12	4	7
	e I am well informed about climate change	6	21	20	36	16	2
<input type="checkbox"/>	f I feel able to control any risks to myself associated with climate change	2	15	21	36	18	7
	g Too much fuss is made about climate change nowadays	6	17	19	35	18	5
	h I am not that bothered about climate change	6	18	16	34	24	2
	i The risks from climate change are unfair because they fall unevenly on particular groups in British Society	5	21	37	16	6	14
<input type="checkbox"/>	j The idea of climate change fills me with dread	8	26	28	22	8	7

MOBILE PHONES

Q16 SHOWCARD K (R) To what extent do you agree or disagree with the following statements? READ OUT a - j. ROTATE ORDER. TICK START. SINGLE CODE FOR EACH ONLY.

		Strongly agree	Tend to agree	Neither agree nor disagree	Tend to disagree	Strongly disagree	No opinion
	Base: All mobile phone respondents (319)	%	%	%	%	%	%
<input type="checkbox"/>	a Radiation from mobile phone handsets has unknown consequences	19	47	23	6	1	4
	b Radiation from mobile phone handsets poses risks to future generations	10	32	44	7	2	6
	c I have mixed feelings about radiation from mobile phone handsets	11	43	27	8	5	7
	d I have moral concerns about radiation from mobile phone handsets	8	24	38	17	5	9
	e I am well informed about radiation from mobile phone handsets	4	12	23	32	24	4
<input type="checkbox"/>	f I feel able to control any risks to myself associated with radiation from mobile phone handsets	13	34	24	14	11	6
	g Too much fuss is made about radiation from mobile phone handsets nowadays	6	25	28	23	12	6
	h I am not that bothered about radiation from mobile phone handsets	7	29	23	21	16	5
	i The risks from radiation from mobile phone handsets are unfair because they fall unevenly on particular groups in British Society	7	23	40	13	8	9
	j The idea of radiation from mobile phone handsets fills me with dread	9	16	32	25	14	4

RADIOACTIVE WASTE

Q16 SHOWCARD K (R) **To what extent do you agree or disagree with the following statements?** READ OUT a - j. ROTATE ORDER. TICK START. SINGLE CODE ONLY FOR EACH

		Strongly agree	Tend to agree	Neither agree nor disagree	Tend to disagree	Strongly disagree	No opinion
	Base: All respondents asked about radioactive waste (306)	%	%	%	%	%	%
<input type="checkbox"/>	a Radioactive waste has unknown consequences	30	48	8	10	1	3
	b Radioactive waste poses risks to future generations	38	48	8	2	*	3
	c I have mixed feelings about radioactive waste	9	46	17	16	9	3
	d I have moral concerns about radioactive waste	17	43	25	8	2	5
	e I am well informed about radioactive waste	3	15	14	40	27	1
	f I feel able to control any risks to myself associated with radioactive waste	3	11	21	33	29	4
<input type="checkbox"/>	g Too much fuss is made about radioactive waste nowadays	2	9	21	41	24	3
	h I am not that bothered about radioactive waste	2	14	16	40	30	2
	i The risks from radioactive waste are unfair because they fall unevenly on particular groups in British Society	12	35	34	10	3	7
	j The idea of radioactive waste fills me with dread	18	32	28	16	5	1

GM FOOD

Q16 SHOWCARD K (R) **To what extent do you agree or disagree with the following statements? READ OUT a - j. ROTATE ORDER. TICK START. SINGLE CODE ONLY FOR EACH.**

		Strongly agree	Tend to agree	Neither agree nor disagree	Tend to disagree	Strongly disagree	No opinion
	Base: All GM food respondents (296)	%	%	%	%	%	%
<input type="checkbox"/>	a Genetically modified food has unknown consequences	27	49	12	5	1	7
	b Genetically modified food poses risks to future generations	18	34	29	6	1	11
	c I have mixed feelings about genetically modified food	14	43	14	11	8	10
	d I have moral concerns about genetically modified food	14	26	29	17	6	10
	e I am well informed about genetically modified food	3	15	21	34	21	7
<input type="checkbox"/>	f I feel able to control any risks to myself associated with genetically modified food	5	20	21	29	15	10
	g Too much fuss is made about genetically modified food nowadays	7	25	21	20	19	8
	h I am not that bothered about genetically modified food	7	26	19	19	19	10
	i The risks from genetically modified food are unfair because they fall unevenly on particular groups in British Society	4	22	39	10	4	20
	j The idea of genetically modified food fills me with dread	13	11	30	22	15	8

GENETIC TESTING

Q16 SHOWCARD K (R) **To what extent do you agree or disagree with the following statements?** READ OUT a – j. ROTATE ORDER. TICK START. SINGLE CODE ONLY FOR EACH.

		Strongly agree	Tend to agree	Neither agree nor disagree	Tend to disagree	Strongly disagree	No opinion
	Base: All genetic testing respondents (305)	%	%	%	%	%	%
<input type="checkbox"/>	a Genetic testing has unknown consequences	20	52	20	4	1	3
	b Genetic testing poses risks to future generations	13	38	27	16	2	5
	c I have mixed feelings about genetic testing	13	48	21	13	5	*
	d I have moral concerns about genetic testing	17	35	21	19	8	1
	e I am well informed about genetic testing	3	13	19	38	27	0
<input type="checkbox"/>	f I feel able to control any risks to myself associated with genetic testing	5	23	28	23	14	6
	g Too much fuss is made about genetic testing nowadays	6	24	24	30	13	4
	h I am not that bothered about genetic testing	6	21	22	38	14	0
	i The risks from genetic testing are unfair because they fall unevenly on particular groups in British Society	6	25	43	16	3	7
	j The idea of genetic testing fills me with dread	6	18	24	32	19	1

CLIMATE CHANGE

Q17 SHOWCARD K (R) AGAIN **To what extent do you agree or disagree with the following statements?** READ OUT a – e. ROTATE ORDER AND TICK START. SINGLE CODE ONLY FOR EACH.

		Strongly agree	Tend to agree	Neither agree nor disagree	Tend to disagree	Strongly disagree	No opinion
	Base: All climate change respondents (321)	%	%	%	%	%	%
<input type="checkbox"/> a	I feel that current rules and regulations in the UK are sufficient to control the emissions that can cause climate change	3	21	21	33	14	10
b	Organisations separate from government are needed to regulate the emissions that can cause climate change	24	43	18	7	*	8
<input type="checkbox"/> c	Organisations separate from industry are needed to regulate the emissions that can cause climate change	28	43	16	5	*	8
d	I would like to be personally consulted in policy making decisions about climate change	11	23	31	23	6	6
e	I feel confident that the British government adequately regulates for curbing the emissions that can cause climate change	5	15	26	30	16	8

MOBILE PHONES

Q17 SHOWCARD K (R) AGAIN To what extent do you agree or disagree with the following statements? READ OUT a – e. ROTATE ORDER AND TICK START. SINGLE CODE ONLY FOR EACH.

		Strongly agree	Tend to agree	Neither agree nor disagree	Tend to disagree	Strongly disagree	No opinion
	Base: All mobile phone respondents (319)	%	%	%	%	%	%
<input type="checkbox"/>	a I feel that current rules and regulations in the UK are sufficient to control radiation from mobile phone handsets	2	22	37	24	6	9
	b Organisations separate from government are needed to regulate radiation from mobile phone handsets	14	47	24	9	2	5
<input type="checkbox"/>	c Organisations separate from industry are needed to regulate radiation from mobile phone handsets	18	42	22	8	1	9
	d I would like to be personally consulted in policy making decisions about radiation from mobile phone handsets	4	20	35	23	12	6
	e I feel confident that the British government adequately regulates radiation from mobile phone handsets	2	15	36	28	11	8

RADIOACTIVE WASTE

Q17 SHOWCARD K (R) AGAIN To what extent do you agree or disagree with the following statements? READ OUT A –E . ROTATE ORDER AND TICK START. SINGLE CODE ONLY FOR EACH.

		Strongly agree	Tend to agree	Neither agree nor disagree	Tend to disagree	Strongly disagree	No opinion
	Base: All respondents asked about radioactive waste (306)	%	%	%	%	%	%
<input type="checkbox"/> a	I feel that current rules and regulations in the UK are sufficient to control radioactive waste	2	20	32	28	11	7
b	Organisations separate from government are needed to regulate radioactive waste	22	50	15	8	2	4
<input type="checkbox"/> c	Organisations separate from industry are needed to regulate radioactive waste	28	50	14	4	1	4
d	I would like to be personally consulted in policy making decisions about radioactive waste	8	24	30	23	10	5
e	I feel confident that the British government adequately regulates radioactive waste	2	22	32	30	11	5

GM FOOD

Q17 SHOWCARD K (R) AGAIN To what extent do you agree or disagree with the following statements? READ OUT a – e. ROTATE ORDER AND TICK START. SINGLE CODE ONLY FOR EACH.

		Strongly agree	Tend to agree	Neither agree nor disagree	Tend to disagree	Strongly disagree	No opinion
	Base: All GM food respondents (296)	%	%	%	%	%	%
<input type="checkbox"/> a	I feel that current rules and regulations in the UK are sufficient to control genetically modified food	3	20	26	23	14	13
b	Organisations separate from government are needed to regulate genetically modified food	21	38	23	5	2	12
<input type="checkbox"/> c	Organisations separate from industry are needed to regulate genetically modified food	25	40	14	5	1	16
d	I would like to be personally consulted in policy making decisions about genetically modified food	8	19	26	25	10	11
e	I feel confident that the British government adequately regulates genetically modified food	2	18	29	27	14	10

GENETIC TESTING

Q17 SHOWCARD K (R) AGAIN To what extent do you agree or disagree with the following statements? READ OUT a- e. ROTATE ORDER AND TICK START. SINGLE CODE ONLY FOR EACH.

		Strongly agree	Tend to agree	Neither agree nor disagree	Tend to disagree	Strongly disagree	No opinion
	Base: All genetic testing respondents (305)	%	%	%	%	%	%
<input type="checkbox"/> a	I feel that current rules and regulations in the UK are sufficient to control genetic testing	6	24	27	26	9	8
b	Organisations separate from government are needed to regulate genetic testing	25	43	20	7	1	5
<input type="checkbox"/> c	Organisations separate from industry are needed to regulate genetic testing	27	46	15	6	2	5
d	I would like to be personally consulted in policy making decisions about genetic testing	9	31	28	21	10	2
e	I feel confident that the British government adequately regulates genetic testing	7	24	23	25	16	5

CLIMATE CHANGE

Q18 SHOWCARD K (R) AGAIN **How much do you agree or disagree that the following should be involved in making decisions about climate change?** READ OUT a – n. ROTATE ORDER AND TICK START. SINGLE CODE ONLY FOR EACH.

		Strongly agree	Tend to agree	Neither agree nor disagree	Tend to disagree	Strongly disagree	No opinion
	Base: All climate change respondents (321)	%	%	%	%	%	%
<input type="checkbox"/> a	Consumer rights organisations (e.g. Consumers' Association)	14	50	20	9	1	6
b	Car companies	18	40	11	19	8	5
c	The general public	26	51	16	3	1	4
d	Environmental organisations	43	45	6	2	0	5
e	Scientists working for Government	27	51	12	5	1	4
f	Local authorities	20	51	17	6	1	5
g	Local communities	22	51	19	2	1	4
<input type="checkbox"/> h	Oil companies	22	36	11	17	10	4
i	Scientists working for the energy industry	25	42	11	13	4	5
j	The national government	30	47	12	5	2	4
k	The European Union (EU)	27	40	16	6	6	5
l	Scientists working for environmental groups	36	50	7	2	0	4
m	Scientists working for Universities	33	47	12	4	*	4
n	Doctors	31	47	13	5	1	4

MOBILE PHONES

Q18 SHOWCARD K (R) AGAIN **How much do you agree or disagree that the following should be involved in making decisions about radiation mobile phone handsets?. READ OUT a - n. ROTATE ORDER AND TICK START. SINGLE CODE ONLY FOR EACH.**

		Strongly agree	Tend to agree	Neither agree nor disagree	Tend to disagree	Strongly disagree	No opinion
	Base: All mobile phone respondents (319)	%	%	%	%	%	%
<input type="checkbox"/>	a Consumer rights organisations (e.g. Consumers' Association)	16	58	17	5	1	3
	b Mobile phone manufactures	17	44	15	15	8	2
	c The general public	22	51	20	5	1	2
	d Environmental organisations	24	54	15	4	2	2
	e Scientists working for Government	21	48	18	9	2	3
	f Local authorities	11	38	25	17	5	4
	g Local communities	15	44	25	10	4	3
<input type="checkbox"/>	h Mobile phone network companies/operators	15	35	21	16	10	4
	i Scientists working for the telecommunications industry	19	42	17	13	5	3
	j The national government	19	44	17	10	5	5
	k The European Union (EU)	14	35	26	11	11	5
	l Scientists working for environmental groups	24	56	11	4	1	4
	m Scientists working for Universities	26	46	18	4	2	4
	n Doctors	29	48	16	3	1	4

RADIOACTIVE WASTE

Q18 SHOWCARD K (R) AGAIN How much do you agree or disagree that the following should be involved in making decisions about radioactive waste? READ OUT a - n. ROTATE ORDER AND TICK START. SINGLE CODE ONLY FOR EACH.

		Strongly agree	Tend to agree	Neither agree nor disagree	Tend to disagree	Strongly disagree	No opinion
	Base: All respondents asked about radioactive waste (306)	%	%	%	%	%	%
<input type="checkbox"/> a	Consumer rights organisations (e.g. Consumers' Association)	22	47	16	8	2	5
b	Ministry of Defence	21	49	13	11	3	4
c	The general public	29	48	11	8	1	4
d	Environmental organisations	40	46	7	3	1	3
e	Scientists working for Government	26	47	16	6	2	3
f	Local authorities	22	51	15	7	2	3
g	Local communities	25	49	15	6	2	4
<input type="checkbox"/> h	Nuclear Industry	28	40	12	10	7	3
i	Scientists working for the nuclear industry	26	43	13	11	3	3
j	The national government	30	48	10	7	2	3
k	The European Union (EU)	23	41	12	13	9	4
l	Scientists working for environmental groups	36	47	11	3	*	3
m	Scientists working for Universities	27	46	17	5	1	3
n	Doctors	27	48	17	5	1	3

GM FOOD

Q18 SHOWCARD K (R) AGAIN **How much do you agree or disagree that the following should be involved in making decisions about genetically modified food?** READ OUT a - n. ROTATE ORDER AND TICK START. SINGLE CODE ONLY FOR EACH.

		Strongly agree	Tend to agree	Neither agree nor disagree	Tend to disagree	Strongly disagree	No opinion
	Base: All GM food respondents (296)	%	%	%	%	%	%
<input type="checkbox"/> a	Consumer rights organisations (e.g. Consumers' Association)	27	49	13	3	2	6
b	Food manufacturers	18	38	17	17	6	4
c	The general public	29	42	17	5	2	6
d	Environmental organisations	30	46	15	4	1	5
e	Scientists working for Government	15	50	17	9	5	5
f	Local authorities	10	31	30	19	3	7
g	Local communities	17	40	24	10	2	8
<input type="checkbox"/> h	Biotechnology industry	9	45	18	11	8	9
i	Scientists working for the biotechnology industry	12	44	19	10	7	9
j	The national government	17	47	17	11	3	6
k	The European Union (EU)	16	38	19	12	8	7
l	Scientists working for environmental groups	22	51	15	5	*	7
m	Scientists working for Universities	21	53	14	3	2	8
n	Doctors	21	49	17	4	1	7

GENETIC TESTING

Q18 SHOWCARD K (R) AGAIN **How much do you agree or disagree that the following should be involved in making decisions about genetic testing?. READ OUT a - n. ROTATE ORDER AND TICK START. SINGLE CODE ONLY FOR EACH.**

		Strongly agree	Tend to agree	Neither agree nor disagree	Tend to disagree	Strongly disagree	No opinion
	Base: All genetic testing respondents (305)	%	%	%	%	%	%
<input type="checkbox"/> a	Consumer rights organisations (e.g. Consumers' Association)	25	47	15	8	2	3
b	Pharmaceutical industry	20	47	13	15	5	1
c	The general public	34	46	13	4	2	1
d	Environmental organisations	35	52	8	4	*	1
e	Scientists working for Government	29	47	10	8	4	2
f	Local authorities	12	40	23	14	7	3
g	Local communities	18	50	20	7	4	1
<input type="checkbox"/> h	Insurance companies	9	17	26	24	22	2
i	Scientists working for the pharmaceutical industry	19	42	16	14	7	2
j	The national government	31	42	13	7	6	1
k	The European Union (EU)	22	37	16	10	12	3
l	Scientists working for environmental groups	36	51	7	4	2	1
m	Scientists working for Universities	38	48	11	2	*	1
n	Doctors	45	46	5	3	1	1

CLIMATE CHANGE

Q19 SHOWCARD L (R) Using this card, to what extent would you trust each of the following organisations and people to tell the truth about climate change? READ OUT a – n. ROTATE ORDER AND TICK START. SINGLE CODE ONLY FOR EACH.

		Trust a lot %	Trust a little %	Neither/N or %	Distrust a little %	Distrust a lot %	Don't know %
	Base: All climate change respondents (321)						
<input type="checkbox"/>	a Consumer rights organisations (e.g. Consumers' Association)	13	49	23	7	4	4
b	Car companies	3	18	17	34	24	4
c	Friends and family	40	33	21	2	*	3
d	Environmental organisations	26	51	11	6	2	4
e	Scientists working for Government	5	36	23	22	12	3
f	Local authorities	4	34	29	21	7	4
g	People from your local community	7	43	35	6	4	4
<input type="checkbox"/>	h Oil companies	2	17	17	32	26	5
i	Scientists working for the energy industry	7	25	15	35	16	4
j	The national government	3	28	19	27	21	2
k	The European Union (EU)	5	25	27	21	17	5
l	Scientists working for environmental groups	23	48	12	11	3	3
m	Scientists working for Universities	24	47	18	6	3	3
n	Doctors	31	40	17	7	2	2

MOBILE PHONES

Q19 SHOWCARD L (R) Using this card, to what extent would you trust each of the following organisations and people to tell the truth about radiation from mobile phone handsets? READ OUT a – n. ROTATE ORDER AND TICK START. SINGLE CODE ONLY FOR EACH.

		Trust a lot	Trust a little	Neither/Neither	Distrust a little	Distrust a lot	Don't know
		%	%	%	%	%	%
	Base: All mobile phone respondents (319)						
<input type="checkbox"/> a	Consumer rights organisations (e.g. Consumers' Association)	24	51	15	6	3	2
b	Mobile phone manufacturers	2	17	22	31	26	2
c	Friends and family	25	31	35	4	2	3
d	Environmental organisations	18	54	17	8	1	3
e	Scientists working for Government	5	41	25	18	8	3
f	Local authorities	2	32	38	18	6	4
g	People from your local community	6	39	41	8	3	3
<input type="checkbox"/> h	Mobile network companies/operators	1	21	17	34	23	3
i	Scientists working for the telecommunications industry	4	25	23	31	13	4
j	The national government	2	34	23	23	15	3
k	The European Union (EU)	5	32	30	17	12	4
l	Scientists working for environmental groups	15	53	20	8	1	2
m	Scientists working for Universities	22	53	15	7	1	3
n	Doctors	31	49	13	3	1	3

RADIOACTIVE WASTE

Q19 SHOWCARD L (R) Using this card, to what extent would you trust each of the following organisations and people to tell the truth about radioactive waste? READ OUT a – n. ROTATE ORDER. TICK START. SINGLE CODE ONLY FOR EACH.

		Trust a lot	Trust a little	Neither/N or	Distrus t a little	Distrus t a lot	Don't know
	Base: All respondents asked about radioactive waste (306)	%	%	%	%	%	%
<input type="checkbox"/> a	Consumer rights organisations (e.g. Consumers' Association)	22	44	21	5	4	6
b	Ministry of Defence	8	34	21	21	13	3
c	Friends and family	36	32	24	4	3	3
d	Environmental organisations	30	46	14	5	3	4
e	Scientists working for Government	10	38	20	19	10	3
f	Local authorities	7	43	24	17	7	3
g	People from your local community	14	44	29	5	3	4
<input type="checkbox"/> h	Nuclear industry	6	24	21	25	20	4
i	Scientists working for the nuclear industry	7	29	19	25	17	4
j	The national government	5	29	23	23	17	4
k	The European Union (EU)	5	29	27	19	17	4
l	Scientists working for environmental groups	25	43	17	7	5	3
m	Scientists working for Universities	23	45	22	5	3	3
n	Doctors	31	47	14	4	2	3

GM FOOD

Q19 SHOWCARD L (R) Using this card, to what extent would you trust each of the following organisations and people to tell the truth about genetically modified food? READ OUT a – n. ROTATE ORDER. TICK START. SINGLE CODE ONLY FOR EACH.

		Trust a lot	Trust a little	Neither/N or	Distrus t a little	Distrus t a lot	Don't know
	Base: All GM food respondents (296)	%	%	%	%	%	%
<input type="checkbox"/> a	Consumer rights organisations (e.g. Consumers' Association)	21	48	15	7	4	5
b	Food manufacturers	4	24	15	35	18	4
c	Friends and family	27	35	24	3	3	8
d	Environmental organisations	19	48	17	7	4	5
e	Scientists working for Government	5	32	22	24	13	5
f	Local authorities	2	29	30	23	9	8
g	People from your local community	6	35	40	6	3	9
<input type="checkbox"/> h	Biotechnology industry	2	33	18	22	16	9
i	Scientists working for the biotechnology industry	4	32	20	22	14	8
j	The national government	4	27	20	27	17	5
k	The European Union (EU)	5	29	23	17	19	8
l	Scientists working for environmental groups	16	47	22	6	3	7
m	Scientists working for Universities	16	50	22	4	2	6
n	Doctors	21	51	16	4	3	4

GENETIC TESTING

Q19 SHOWCARD L (R) Using this card, to what extent would you trust each of the following organisations and people to tell the truth about genetic testing? READ OUT a – n. ROTATE ORDER. TICK START. SINGLE CODE ONLY FOR EACH.

		Trust a lot	Trust a little	Neither/N or	Distrust a little	Distrust a lot	Don't know
	Base: All genetic testing respondents (305)	%	%	%	%	%	%
<input type="checkbox"/>	a Consumer rights organisations (e.g. Consumers' Association)	28	40	19	9	2	3
b	Pharmaceutical industry	10	32	24	18	14	2
c	Friends and family	43	33	20	1	*	2
d	Environmental organisations	29	53	8	7	1	2
e	Scientists working for Government	22	30	13	22	12	2
f	Local authorities	8	31	32	16	11	3
g	People from your local community	14	42	32	5	3	3
<input type="checkbox"/>	h Insurance companies	4	16	24	24	28	3
i	Scientists working for the pharmaceutical industry	11	29	20	24	14	2
j	The national government	18	28	17	18	18	2
k	The European Union (EU)	14	27	22	16	16	6
l	Scientists working for environmental groups	29	48	13	8	1	2
m	Scientists working for Universities	38	43	12	5	1	2
n	Doctors	44	40	9	5	1	1

CLIMATE CHANGE

Q20 SHOWCARD M (R) To what extent do you agree or disagree with the following statements about the government? READ a – m. ROTATE ORDER AND TICK START. SINGLE CODE ONLY FOR EACH.

		Strongly agree	Tend to agree	Neither agree nor disagree	Tend to disagree	Strongly disagree	No opinion
	Base: All climate change respondents (321)	%	%	%	%	%	%
<input type="checkbox"/>	a The government has the same opinion as me about climate change	2	12	34	28	16	9
	b The government is doing a good job with regard to climate change	1	12	28	37	16	6
	c The government is competent enough to deal with climate change	2	21	26	29	16	6
	d The government has the necessary skilled people to carry out its job with regard to climate change	4	32	26	21	10	7
<input type="checkbox"/>	e The government distorts facts in its favour regarding climate change	17	38	26	7	2	10
	f The government changes policies regarding climate change without good reasons	13	34	30	9	1	12
	g The government is too influenced by the energy industry regarding climate change	16	42	25	7	1	9
	h The government is acting in the public interest with regard to climate change	1	22	29	31	12	6
	i The government listens to concerns about climate change raised by the public	1	19	25	36	14	6
<input type="checkbox"/>	j The government has the same ideas as me about climate change	1	8	31	31	18	11
	k The government listens to what ordinary people think about climate change	1	12	21	40	21	6
	l I feel that the way the government makes decisions about climate	*	11	38	29	14	9

		change is fair					
m	The government provides all relevant information about climate change to the public	*	7	22	37	25	9

MOBILE PHONES

Q20 SHOWCARD M (R) To what extent do you agree or disagree with the following statements about the government? READ a – m. ROTATE ORDER. TICK START. SINGLE CODE ONLY FOR EACH.

		Strongly agree	Tend to agree	Neither agree nor dis-agree	Tend to disagree	Strongly disagree	No opinion
	Base: All mobile phone respondents (319)	%	%	%	%	%	%
<input type="checkbox"/> a	The government has the same opinion as me about radiation from mobile phone handsets	2	11	39	27	9	13
b	The government is doing a good job with regard to radiation from mobile phone handsets	1	9	43	27	11	10
c	The government is competent enough to deal with radiation from mobile phone handsets	2	21	24	30	13	10
d	The government has the necessary skilled people to carry out its job with regard to radiation from mobile phone handsets	3	27	32	21	7	11
<input type="checkbox"/> e	The government distorts facts in its favour regarding radiation from mobile phone handsets	13	28	36	10	2	11
f	The government changes policies regarding radiation from mobile phone handsets without good reasons	9	26	43	7	1	13
g	The government is too influenced by the telecommunications industry regarding radiation from mobile phone handsets	11	38	35	7	*	10
h	The government is acting in the public interest with regard to radiation from mobile phone handsets	2	20	37	24	6	11
i	The government listens to concerns about radiation from mobile phone handsets raised by the public	2	20	28	31	8	11
<input type="checkbox"/> j	The government has the same ideas as me about radiation from mobile phone handsets	2	8	41	24	12	14
k	The government listens to	1	14	28	31	16	11

	what ordinary people think about radiation from mobile phone handsets						
l	I feel that the way the government makes decisions about radiation from mobile phone handsets is fair	1	11	43	26	7	12
m	The government provides all relevant information about radiation from mobile phone handsets to the public	1	8	26	36	23	7

RADIOACTIVE WASTE

Q20 SHOWCARD L (R) To what extent do you agree or disagree with the following statements about the government? READ a – m. ROTATE ORDER. TICK START. SINGLE CODE ONLY FOR EACH

		Strongly agree	Tend to agree	Neither agree nor disagree	Tend to disagree	Strongly disagree	No opinion
	Base: All respondents asked about radioactive waste (306)	%	%	%	%	%	%
<input type="checkbox"/> a	The government has the same opinion as me about radioactive waste	*	9	32	35	12	11
b	The government is doing a good job with regard to radioactive waste	*	12	47	26	9	7
c	The government is competent enough to deal with radioactive waste	2	20	28	33	13	5
d	The government has the necessary skilled people to carry out its job with regard to radioactive waste	4	36	31	16	8	6
<input type="checkbox"/> e	The government distorts facts in its favour regarding radioactive waste	16	43	26	7	2	5
f	The government changes policies regarding radioactive waste without good reasons	10	29	41	10	1	9
g	The government is too influenced by the nuclear industry regarding radioactive waste	11	41	34	7	2	6
h	The government is acting in the public interest with regard to radioactive waste	2	20	34	31	9	5
i	The government listens to concerns about radioactive waste raised by the public	1	23	26	35	9	6
<input type="checkbox"/> j	The government has the same ideas as me about radioactive waste	0	10	33	33	14	11
k	The government listens to what ordinary people think about radioactive waste	1	12	27	37	19	5
l	I feel that the way the	*	14	41	27	10	8

	government makes decisions about radioactive waste is fair						
m	The government provides all relevant information about radioactive waste to the public	*	6	23	39	27	6

GM FOOD

Q20 SHOWCARD M (R) To what extent do you agree or disagree with the following statements about the government? READ a – m. ROTATE ORDER. TICK START. SINGLE CODE ONLY FOR EACH.

		Strongly agree	Tend to agree	Neither agree nor disagree	Tend to disagree	Strongly disagree	No opinion
	Base: All GM food respondents (296)	%	%	%	%	%	%
<input type="checkbox"/> a	The government has the same opinion as me about genetically modified food	2	10	25	27	23	13
b	The government is doing a good job with regard to genetically modified food	1	11	37	22	17	12
c	The government is competent enough to deal with genetically modified food	1	22	25	22	20	11
d	The government has the necessary skilled people to carry out its job with regard to genetically modified food	2	29	26	21	10	12
<input type="checkbox"/> e	The government distorts facts in its favour regarding genetically modified food	17	34	32	6	1	10
f	The government changes policies regarding genetically modified food without good reasons	15	31	35	6	1	12
g	The government is too influenced by the biotechnology industry regarding genetically modified food	15	29	36	7	1	12
h	The government is acting in the public interest with regard to genetically modified food	3	23	26	24	15	9
i	The government listens to concerns about genetically modified food raised by the public	2	20	23	32	14	11
<input type="checkbox"/> j	The government has the same ideas as me about genetically modified food	1	9	29	27	21	14

k	The government listens to what ordinary people think about genetically modified food	1	16	19	33	24	8
l	I feel that the way the government makes decisions about genetically modified food is fair	1	12	33	27	16	12
m	The government provides all relevant information about genetically modified food to the public	1	9	21	33	27	10

GENETIC TESTING

Q20 SHOWCARD M (R) To what extent do you agree or disagree with the following statements about the government? READ a – m. ROTATE ORDER. TICK START. SINGLE CODE ONLY FOR EACH.

		Strongly agree	Tend to agree	Neither agree nor disagree	Tend to disagree	Strongly disagree	No opinion
	Base: All genetic testing respondents (305)	%	%	%	%	%	%
<input type="checkbox"/>	a The government has the same opinion as me about genetic testing	3	10	29	31	15	12
	b The government is doing a good job with regard to genetic testing	2	18	39	23	11	8
	c The government is competent enough to deal with genetic testing	6	25	26	24	16	4
	d The government has the necessary skilled people to carry out its job with regard to genetic testing	11	31	30	11	10	7
<input type="checkbox"/>	e The government distorts facts in its favour regarding genetic testing	17	36	33	10	6	8
	f The government changes policies regarding genetic testing without good reasons	12	30	35	9	4	11
	g The government is too influenced by the pharmaceutical industry regarding genetic testing	13	38	28	11	2	9
	h The government is acting in the public interest with regard to genetic testing	6	26	25	30	11	4
	i The government listens to concerns about genetic testing raised by the public	4	27	18	34	16	2
<input type="checkbox"/>	j The government has the same ideas as me about genetic testing	1	10	34	28	18	10
	k The government listens to what ordinary people think about genetic testing	1	17	23	35	22	3
	l I feel that the way the government makes decisions about genetic	1	19	35	23	16	6

		testing is fair					
m	The government provides all relevant information about genetic testing to the public	1	9	18	34	34	4

CLIMATE CHANGE

Q21 SHOWCARD N (R) Which, if any, of the following things have your household done in the last year or two? Just read out the letter or letters that apply. MULTICODE OK

	Base: All climate change respondents (321)	%
A)	Asked your electricity or gas supplier, or an energy advice centre for advice about energy efficiency	29
B)	Made an effort to use public transport instead of using a car	42
C)	Used energy saving light bulbs	50

MOBILE PHONES

Q21 SHOWCARD N (R) How often do you use a mobile phone? SINGLE CODE ONLY

	Base: All mobile phone respondents (319)	%
	Many times a day	16
	Once or twice a day	18
	A few times a week	25
	Less than once a week - only for emergencies	21
	I don't have a mobile phone	21
	Don't know	0

RADIOACTIVE WASTE

Q21 Do you live near a nuclear facility (e.g. a nuclear power plant or nuclear waste facility), or not?

	Base: All respondents asked about radioactive waste (306)	%
	Yes	13
	No	80
	Don't know	7

GM FOOD

Q21 SHOWCARD M (R) AGAIN How much do you agree or disagree with the following statements? SINGLE CODE ONLY

	Strongly agree	Tend to agree	Neither agree nor disagree	Tend to disagree	Strongly disagree	No opinion
Base: All GM food respondents (296)	%	%	%	%	%	%

**I personally would be
happy to eat genetically
modified food**

8

21

20

21

25

5

GENETIC TESTING

Q21 SHOWCARD M (R) AGAIN **How much do you agree or disagree with the following statements? SINGLE CODE ONLY**

	Strongly agree	Tend to agree	Neither agree nor disagree	Tend to disagree	Strongly disagree	No opinion
Base: All genetic testing respondents (305)	%	%	%	%	%	%
I personally would be happy to have a genetic test to identify whether or not I have any inherited medical conditions	28	28	11	14	17	2

Demographics

Gender

	%
Male	49
Female	51

Age

	%
15-24	16
25-34	18
35-44	18
45-54	16
55-59	8
60-64	7
65+	17

Region

	%
London	13
Scotland	9
North-East	5
North-West	11
Yorkshire and Humberside	9
East Midlands	7
West Midlands	9
Wales	5
South-West	9
Eastern	9
South-East	14

Working Status of Respondent:

	%
Working - Full time (30+ hrs)	45
- Part-time (9-29 hrs)	11
Unemployed – seeking work	3
- not seeking work	3
Not working – retired	21
- looking after house/children	7
- invalid/disabled	3
Student	6
Other	1

Class

	%
A	4
B	18
C1	32
C2	18
D	13
E	14

Respondent is:

	%
Chief Income Earner	57
Not Chief Income Earner	40

QA SHOWCARD O To which of the groups on this card do you consider you belong? SINGLE CODE ONLY

	%
WHITE	
British	89
Irish	2
Any other white background	3
MIXED	
White and Black Caribbean	*
White and Black African	0
White and Asian	*
Any other mixed background	*
ASIAN OR ASIAN BRITISH	
Indian	1
Pakistani	1
Bangladeshi	*
Any other Asian background	1
BLACK OR BLACK BRITISH	
Caribbean	1
African	1
Any other black background	*
CHINESE OR OTHER ETHNIC GROUP	
Chinese	*
Any other background	*
Refused	1

QB SHOWCARD P Which of these daily newspapers do you read regularly? By regularly, I mean three out of every four issues. MULTICODE OK

	%
The Express	5
Daily Mail	16
Daily Record	3
The Daily Telegraph	6
Financial Times	2
The Guardian	4
The Herald	1
The Independent	3
The Scotsman	1
Daily Star	2
The Sun	18
The Times	6
Metro	2
Evening Standard	2
None of these	36
Other	13

QC SHOWCARD Q Which of these Sunday newspapers do you read regularly? By regularly, I mean three out of every four issues. MULTICODE OK

	%
News of the World	18
Sunday Express	3
Sunday Mail (Scotland only)	4
Sunday Mirror	8
Sunday Post	3
The Sunday Telegraph	5
The Mail on Sunday	13
The Observer	2
Sunday People	5
The Sunday Times	9
Scotland on Sunday	*
The Independent on Sunday	2
Sunday Business	*
Sunday Herald	1
None of these	42
Other	2

QD SHOWCARD R Using this card, please tell me which, if any, is the highest educational or professional qualification you have obtained (IF STILL STUDYING, CHECK FOR HIGHEST ACHIEVED SO FAR) MULTICODE OK

	%
GCSE/O-level/CSE	22
Vocational quals	9
A level or equivalent	12
Bachelor Degree or	16
Masters/PhD or equivalent	4
Other	10
No formal qualifications	27
Still studying	4
Don't know	1

QE Marital Status SINGLE CODE ONLY

	%
Married	47
Living together	9
Single	26

Widowed	8
Divorced	7
Separated	2
Refused/Don't know	1

QF SHOWCARD S **How would you describe the composition of your household?** SINGLE CODE ONLY

	%
Single adult under 60	10
Single adult 60 or over	10
Two adults both under 60	18
Two adults at least one 60 or over	14
Three adults or more all 16 or over	15
1-parent family with child/ren, at least one under 16	6
2-parent family with child/ren at least one under 16	27
Other (WRITE IN & CODE 8)	1
Not stated	1

QG ASK IF CHILDREN UNDER 16 IN HOUSEHOLD AT QF. ALL OTHERS GO TO QH. **What ages are the children in the household?** MULTICODE OK

	%
0-4	14
5-7	9
8-10	9
11-15	14
Don't know	1

ASK ALL

Q **How many cars/vans do you have in your household in total, if any?** SINGLE CODE ONLY
H

	%
0	23
1	44
2	25
3	6
4	2
5	1
6 or more	*

QI SHOWCARD T **And which of these best describes the area where you live most of the time?** SINGLE CODE ONLY.

	%
In the middle of a town or city	31
In a suburb	41
On the edge of the countryside	20
In the middle of the countryside	8

QJ SHOWCARD U (R) In which would you place your total household income from all sources before tax and other deductions? Just read out the letter that applies. SINGLE CODE ONLY

	Per Week		%
A	Up to £86	Under £4,500	3
B	£87-£125	£4,500-£6,499	6
C	£126-£144	£6,500 - £7,499	3
D	£145-£182	£7,500 - £9,499	3
E	£183-£221	£9,500-£11,499	3
F	£222-£259	£11,500-£13,499	3
G	£260-£298	£13,500-£15,499	4
H	£299-£336	£15,500 - £17,499	3
I	£337-£480	£17,500 - £24,999	6
J	£481-£576	£25,000 - £29,999	7
K	£577-£769	£30,000 - £39,999	9
L	£770-£961	£40,000 - £49,999	5
M	£962-£1,441	£50,000 - £74,999	6
N	£1,442-£1,922	£75,000 - £99,999	1
O	£1,923 or over	£100,000 +	1
		Refused	21
		Don't know	16

QK How would you vote if there were a General Election tomorrow? (IF AGED 15-17 ADD: If you were old enough to vote?) SINGLE CODE ONLY. IF ANSWER UNDECIDED OR REFUSED ASK QL

QL ASK IF UNDECIDED OR REFUSED AT QK. Which party are you most inclined to support? SINGLE CODE ONLY

	Base:	QK (1,547) %	QL (411) %
Conservative		18	10
Labour		27	14
Liberal Democrats (Lib		10	7
Scottish/Welsh Nationalist		2	1
Green Party		1	2
Democratic Party		0	0
UK Independence Party		*	0
Referendum Party		*	0
Other		1	1
Would not vote		15	1
Undecided		21	42
Refused		6	22

ASK ONLY IF AGED 18 AND ABOVE

OTHERS GO TO QN

QM Did you vote in the last general election in June 2001 or not? SINGLE CODE ONLY

	%
Yes	63
No	29
Don't know	3

QN SHOWCARD V (R) **How often does it happen that your household does not have enough money to afford necessities, such as food and clothing, or to meet the payment of (water, gas and electricity) bills? SINGLE-CODE ONLY Please read out the letter that applies.**

A	Always	%
B	Frequently	2
C	Occasionally	7
D	Rarely	12
E	Never	17
	Don't know	61
		3

QO **In general, compared to other people in your local community do you feel that on local issues you have.....? READ OUT. SINGLE CODE ONLY.**

		%
	More say than them	7
	or less say than them	11
	or no difference	76
	Don't know	7

QP **And, in general, compared to other people in Britain do you feel that on national issues you have.....? READ OUT. SINGLE CODE ONLY.**

		%
	More say than them	6
	or less say than them	12
	or no difference	72
	Don't know	9

QQ **Do you undertake any voluntary work in your local community? SINGLE CODE ONLY**

		%
	Yes	17
	No	79
	Don't know	4

QR SHOWCARD W (R) **How regularly, if at all, would you say you speak to the following groups of people? READ OUT a - c. SINGLE CODE ONLY FOR EACH.**

Often Regularly Sometimes Rarely Never Don't know

a	%	A family member or family members	66	27	4	1	*	*
b	%	A friend or friends	57	35	6	2	*	*
c	%	A neighbour or neighbours	31	32	26	9	2	*

QS SHOWCARD W (R) AGAIN **How regularly, if at all, would you say you visit or are visited by the following groups of people? READ OUT a-c. SINGLE CODE ONLY FOR EACH.**

			Often	Regularly	Sometimes	Rarely	Never	Don't know
a	%	A family member or family members	47	32	14	5	1	*
b	%	A friend or friends	39	36	19	5	1	*
c	%	A neighbour or neighbours	17	21	26	22	14	1

THANK RESPONDENT, COMPLETE DEMOGRAPHICS AND CLOSE