APPENDICES

Appendix 1

Newspaper analysis

Table 1   Final selection of newspaper articles by newspaper and by month

Month	Total	Daily Mail (+ Mail on Sunday)	Mirror (+ Sunday Mirror)	Times (+ Sunday Times)	Independent (+ Independent on Sunday)
March 1998	10	2	4	1	3
June 1999	10	2	2	2	4
August 1999	13	3	4	3	3
April 2000	3	0	1	0	2
January 2001	50	14	9	14	13
February 2001	16	10	4	1	1
August 2001	16	5	1	5	5
September 2001	4	0	1	1	2
December 2001	38	14	3	9	12
January 2002	8	3	2	2	1
February 2002	91	28	10	28	25
March 2002	16	8	1	7	0
May 2002	10	6	1	2	1
June 2002	15	10	1	3	1
July 2002	18	10	1	5	2
August 2002	10	6	1	1	2
September 2002	4	1	1	0	2
May 2003	7	2	1	2	2
June 2003	8	3	2	1	2
Total for 19 months	347	127	50	87	83
% by newspaper		37%	14%	25%	24%

Appendix 2

Topic guides

Appendix 2A: Specialist interviews[1]

1. Introduction

Thank you for accepting to meet me.

Permission to record the session: record of the conversation for further analysis.

My research:

- Exploratory thesis about the cognitive processes used by people when trying to make sense of their world.

- Focusing on medical-related knowledge because something that affects everyone and *the* scientific area that is of interest to almost everyone.

- In this interview, covering different facets of the interface between people and the medical world with focus on the MMR vaccination issue.

2. Professional history

Area of expertise; length of service in the current role; most interesting/impressive/surprising aspects of the role?

3. MMR vaccination issue

Current situation:

- What is happening in your practice?

What has been your experience of the issue?

- How do patients make sense of problematic medical decisions such as MMR? (*Typical appointment with parents to discuss MMR.)*

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[1] This particular topic guide was used when interviewing health professionals with direct contact with mothers. It was slightly modified when interviewing the other specialists.

- Does this pattern apply to most patients? How would you segment/divide your patients? *(Characteristics of catchment area of GP practice being discussed.)*

What about you and your colleagues? How do you make sense of the official line? (What is the official line?)

How different from other vaccines?

4.   Science and medicine

Role of the medical profession in particular and of the scientific profession in general vis-à-vis the population.

People's attitudes to the medical profession:

- In your experience, how do patients make sense of medical knowledge?

    o *Is it always problematic? Can you give me specific examples when it is and when it is not?*

- How does it differ when and where children are concerned?

5.   Role of the media

What is their current role? Is that how it should be according to you?

And is that important to you? Why is that?

To what extent do they influence people's relationship with their doctors? How does that influence manifest itself?

6.   Other contested issues that could be of interest for other case studies or further research

We have covered a lot of interesting issues, is there anything we have not covered?

Thank you!

Appendix 2B: Focus groups

1.   Technical matters

Confidentiality and anonymity. Permission to record the session (transcript and analysis purposes).

A few rules (eg, mobile phones switched off, only one person speaking at a time and quite loud, no side conversations, all views are welcome).

Data access and ownership: make clear that interviews can be edited if they have second thoughts about things to be included or not.

2.   Situating today's discussion

Part of my university work: social psychology, looking into people's concerns in the area of children, health and other relevant issues.

Quick presentation by everyone: name, number and age of children, if children were born in the UK.

3.   Bringing up healthy children: concerns

So, as we can see from everyone's introduction, we're all parents and this involves making decisions about what is best for them. In that regard, we're all confronted by many competing, contradictory claims about what we should or should not do to raise healthy children. In the first instance, I would like to get an idea of **your** concerns as parents wishing to bring up healthy children.

4.   Pick up one area of concern that seems to affect a number of participants (apart from MMR if mentioned) and explore it further

Many people have mentioned the issue of [...]. I would like to discuss it in greater detail (eg, personal experience of the issue: significance, implications for bringing up children).

5.   MMR vaccination issue

Another issue that has been mentioned and on which I would like to focus for a while [or, if not raised in the first part, I would like to raise] is the debate on the MMR vaccination. I guess that everyone around this table has been confronted in one way or another with this issue.

What did you do? *(Family immunisation history)*

How did you reach your decision? Whom did you talk to? What did you read?

- *Could be both process – active or passive search for evidence and content – in terms of sources of evidence.*

- *Newspapers? Radio? TV? Internet? Partner? Social network: friends, parents, neighbours? Health care professionals: GPs, nurses, health visitors? Alternative practitioners (eg, homeopaths, naturopaths, etc.)?*

What do you remember from the evidence? *(Probe why it was used, its functionality.)*

So, you've got to a stage where you made a decision. If you go back to this moment, what clinched it for you? What tipped the balance?

- *Alternative ways of probing: what would you say to your daughter if she came to you in a few years' time and said that she was worried about this issue? Or what if you had another child? What would it take, in terms of evidence or people to contact, to change your mind?*

6.   Views on the medical profession (if not debated before)

We've heard very interesting views about the MMR debate. I'd like to enlarge the discussion now and have your views about the medical profession in general.

- How do you see their role? What do you expect of them?

- How would you describe your relationship with your doctor(s)? How has it changed since you've had your children?

- How do you go about making a medical-related decision? Are there different types of decisions to be made?

7. Role of the media

Finally, we've heard a lot about how the media influenced your decisions over your children and health; how they made you aware of certain issues, etc. I would like to spend some time getting your views on the media.

- What is their role? Is that how it should be according to you?

- To what extent do they influence people's relationship with their doctors? How does that influence manifest itself?

8. Ending the discussion

We have covered a lot of interesting issues, is there anything we have not covered? Is there anything else you would like to tell me?

What have been the most important elements of our conversation today?

Many thanks for your help today.

Appendix 2C: Individual interviews

1.   Technical matters

Thank you for accepting to take part in this interview.

Permission to record. Consent form to be read and signed.

All views are welcome. I'm only here to listen to your experience as a mother and your views on a number of health issues.

2.   Situating today's discussion

Presenting myself: mother of two children. Used to work. Went back to university. Looking into people's concerns in the area of children, health and other relevant issues.

Can you tell me a few things about you? *(Pause and prompt if needed)*

- Marital status. Number of children and their age.

- (If not British) How many years in the UK?

- Occupation (her and/or partner). If not working, what did she do before having child(ren). Highest educational achievement.

- Typical day.

- How do you feel about being a mother? Was it something always important for you to become?

3.   Bringing up healthy children: concerns

If we focus on health issues to do with children, as parents, we're all confronted by many contradictory claims about what we should or should not do to raise healthy children. In the next few minutes, I would like to get an idea of your concerns as a mother wishing to bring up healthy children.

Among those concerns (if more than one), what is the most significant problem for you? Why is it so? Personal experience of the issue: significance, implications for bringing up children.

4.   The MMR debate for you

An issue that you have (or not) mentioned and is of interest to me is the MMR vaccine. What did you do? (*Family immunisation history*) Was it a dilemma for you? Why? Why this issue more than others? Tell me how you took the decision about the MMR vaccine? Did you think it through in terms of the risks involved? Were you impressed by the stories you read or heard about autistic children?

(Less probing if it was not an issue)

Whom did you talk to?

- Health professionals? (probe for which ones – GP, nurse in GP practice etc.)

- Alternative practitioners (eg, homeopaths, naturopaths)

- Directly from the NHS?

- Friends, family (i.e. mother/sisters/other relations), informal networks?

- The media – books/magazines/TV/internet searches?

- Other sources – i.e. library/health promotion/voluntary groups etc?

You mentioned these sources of information (list them). Why did you look for these particular sorts of information as opposed to others? *(Probe why it was used, its functionality.)* What were you trying to get from it?

What do you remember from the evidence you got? What did you think of it? Were they credible? Why?

Was it easy to get access to the types of information or people you wanted? *(Extra effort, curiosity)* Do you think you would have investigated the issue further had it been easier to access this information?

What did you do with that information? Which of these claims was the most important to you? Did this source/piece of information, which you privileged, affected how you assessed what other people were saying to you?

What helped you the most in the end to take a decision? What was the critical piece of information/person that cracked it for you? Why was it so? How did that influence the other information you had collected?

How similar or different was your decision compared to the one of friends or relatives who were faced with the same question? If different, was it a problem?

Are there other kinds of expertise/advice/evidence you used in the process?

- What about alternative medicine?

- Has your attitude towards alternative medicine changed since the debate?

What would it take, in terms of evidence or people to contact, to change your mind?

5. The MMR controversy in general

I'm also interested in your views on the MMR controversy as such. Why do you think it led to such a controversy? Which claims (types of evidence) were made by the different parties involved? What do you remember from the evidence? What did you think of them? Were they credible? Why? Which of these claims was the most important for you? *(Prompts for government and for anti- and pro-MMR camps)*

Are there any situations when you don't trust what your doctor (or the scientific community) tells you?

Would you do anything different next time? Or what type of advice would you give to a friend or your daughter?

6. Other health issues

How do you go generally about making a decision regarding health?

Are you very curious by nature?

Do you find that you do about the same things for other major decisions that you have to take? Can you give me any examples of such decisions? *(Could be outside of health and children.)*

Would you say that there is a particular type of issues that trigger your interest?

7.   Views on the medical profession (if not debated before)

We've heard very interesting views about the MMR debate. I'd like to enlarge the discussion now and have your views about the medical profession in general.

- How do you see their role? What do you expect of them?

- How would you describe your relationship with your doctor(s)? How has it changed since you've had your children?

8.   (If time available) Sources and types of information

What sorts of information do you think people really want (eg, scientific/technical information; risks; ethical) when it comes to make a judgment on controversial issues? Which sources of information do they want to use?

9.   Ending the discussion

We have covered a lot of interesting issues, is there anything else you would like to tell me?

Discuss experience of the interview with the participant in order to monitor any unforeseen negative effects or misconception. Discuss possibility of contacting them again later to discuss and validate the results.

Many thanks for your help today.

Appendix 3

Demographic details of participants

Table 2   Focus groups

Participant	Focus group	Nationality	Age range	No. children (age)	Occupation	Status - MMR vaccine
1	1	Malaysian but has lived in the UK for many years	35-39	2 (5 and 2)	Part-time architect	Yes for both children
2	1	American but has lived in the UK for many years	40-44	1 (6)	Part-time artist	Separate vaccines
3	1	British	40-44	2 (9 and 7)	Full-time mother	No
4	1	British	35-39	4 (9, 7, 6 and 4)	Senior manager	Yes for all the children
5	2	British	35-39	2 (9 and 5)	Full-time mother, formerly working for a pharmaceutical company	Gave MMR combined vaccine to her 1st child but did not give her the booster shot. Did not give anything to her 2nd child
6	2	British	35-39	3 (9, 8 and 6)	Part-time solicitor	Yes for all of them but delayed it until it was time for their pre-school booster and they received only one dose
7	2	British	35-44	3 (9, 7 and 4)	Full-time mother	Yes for all the children but her youngest had yet to receive her pre-school booster

Table 2   Focus groups (continued)

Participant	Focus group	Nationality	Age range	No. children (age)	Occupation	Status - MMR vaccine
8	2	Neo-Zealander	35-44	2 (9 and 7)	Part-time accountant	Yes for both of them but had yet to give the pre-school booster to her 2nd child
9	2	British	35-44	2 (10 and 6)	Full-time mother	Yes for both children
10	2	British	35-44	2 (7 and 4)	Full-time mother	Yes for both children
11	3	American	35-39	4 (4 and 18 month-old triplets)	Full-time mother (previously in the City)	Separate vaccines to all the children
12	3	British	35-39	2 (3 and 5 month-old)	Marketing executive	Separate vaccines to 1st child and was likely to give them to 2nd child
13	3	Irish	35-39	2 (3 and 1 month-old)	City lawyer	Separate vaccines to 1st child and was likely to give them to 2nd child

Table 3   Individual interviews

Participant	Nationality	Age range	No. children (age)	Occupation	Status - MMR vaccine
01	Chinese-Malaysian but has lived in the UK for 18 years	35-39	1 (20 month-old)	Full-time mother, formerly waitress	Yes
02	Indian but has lived in the UK for 35 years	35-39	1 (2 year-old)	Full-time mother, formerly PA in the City	Yes
03	British	40-44	2 (11 and 2)	Poet and teacher	Yes for both children
04	Australian but has been in the UK for 6 years	30-34	1 (17 month-old)	Full-time mother, formerly marketing executive	Yes
05	American but has been in the UK for 8 years	40-44	2 (3 and 18 month-old)	Full-time mother, formerly working in media production	Separate vaccines for both children
06	Portuguese but has been in the UK for 10 years	30-34	2 (2 and a half, and 1)	Full-time mother, formerly market researcher	Gave combined vaccine to eldest child and will do the same for youngest one
07	Greek but has been in the UK for 7 years	30-34	1 (2 and pregnant of the 2nd one at the interview)	Part-time work in bank	Yes
08	Spanish but has been in the UK for 11 years	35-39	3 (8, 3 and 2)	Part-time as a market researcher	Yes for all the children

Table 3   Individual interviews (continued)

Participant	Nationality	Age range	No. children (age)	Occupation	Status - MMR vaccine
09	Canadian but has been in the UK for 6 years	40-44	3 (9, 7 and 2)	TV producer	Yes for all the children
10	British	35-39	1 (18 month-old)	Librarian	No
11	British	35-39	2 (4 and 2)	Journalist	Separate vaccines to 1st child and combined vaccine to 2nd
12	British	35-39	2 (5 and 4)	Full-time mother, formerly accountant	Separate vaccines to both children
13	British	35-39	3 (twins of 4 and a half, and 18 month-old)	Full-time mother, formerly owner of small company	Separate vaccines to three children but the twins received the combined vaccine for their booster shots
14	Canadian	35-39	2 (4 and 2)	Investment banker	Yes for both children
15	British	30-34	1 (15 month-old)	Travel executive	Yes
16	British	30-34	1 (15 month-old)	Full-time mother, formerly a pet sitter	Yes
17	British	25-29	1 (18 month-old)	Full-time mother	No
18	British	25-29	2 (2 and 5 month-old)	Hairdresser	Yes to 1st child. Was likely to give it to 2nd child

Appendix 4

ALCESTE results

Table 4 ALCESTE analysis: significant words with chi-square value of 30 and above by alphabetical order

A '+' sign indicates that this representative word includes other words from the same morphological family as a result of the lemmatisation process.

* This class corresponds to Class D of Analysis 4. Similar content was identified in four of the six analyses conducted.

** This class corresponds to Class G of Analysis 6. Its chi-square values cannot be compared with those of the other classes in this table which come from Analysis 4.

Class A		Class B		Class C		Class E		Personal views and opinions*		Single vaccines**	
Word	**Chi-square value**	**Word**	**Chi-square value**	**Word**	**Chi-square value**	**Word**	**Chi-square value**	**Word**	**Chi-square value**	**Word**	**Chi-square value**
accus+	98.61	adverse+	32.59	afford+	44.79	a_year	51.75	accept+	31.22	abroad	53.42
advice	68.24	america+	32.60	after	37.03	against	31.31	all	44.82	act+	49.21
alan_milburn+	117.12	american+	32.80	anne	97.44	age+	30.34	am	67.92	administer+	87.00
answer+	61.40	analysis	36.02	among	38.44	among	35.83	beef	42.07	advice	44.84
battle+	35.85	and	42.44	baby+	38.44	are	51.51	bse	69.71	animal+	65.99
bbc+	35.85	autism+	987.83	bed+	95.78	area+	181.74	care+	35.28	book+	32.97
blair+	1122.46	autistic	66.90	begin	36.26	average	33.18	danger+	43.19	british_medical_asso	54.75
booth+	69.75	between	301.45	behaviour	38.81	babies	86.01	deal	39.56	bully+	43.70
campaign+	73.94	bowel_disease+	378.47	boy+	80.77	below	114.34	do	100.98	cash+	38.89
challenge+	45.02	bowel_disorder+	128.66	bright	41.32	blindness	37.19	fact+	50.57	charge+	153.85
cherie+	214.62	bowel+	99.23	claud+	41.32	boost+	31.70	feel	66.50	clinic+	452.23
choice+	39.94	brain+	33.17	cold+	32.62	brain_damage+	94.22	future	33.09	company+	286.26
choose	35.38	brit+	32.15	communic+	31.65	britain+	43.37	go	47.34	consult+	30.67
christmas	36.06	by	104.01	couple+	44.42	can	33.14	hand+	65.45	cost	78.23
comment+	74.53	carrie+	32.77	daniel+	58.77	case+	200.77	how	42.20	council+	48.47
confid+	61.86	causal+	38.42	daughter+	76.03	catch	82.30	human+	59.09	course+	37.37
conservat+	192.75	cause+	52.67	day	139.34	childhood	42.00	I	185.27	diabetic+	65.99
controvers+	59.88	children+	36.80	eye+	41.60	children+	89.73	is	50.22	director+	46.59
decision+	33.09	claim+	103.37	few	30.77	clapham+	51.39	it	54.85	doctor+	163.01
discuss+	31.19	college+	73.70	fine+	37.17	cluster+	66.66	kind+	31.97	dr	48.08
downing_street+	152.36	commission+	31.99	forbes	30.99	compare+	68.46	know	74.07	dr_copp+	165.24
family+	69.74	committee+	39.74	gbp	61.58	complic+	73.26	life+	42.30	dr_mansfield+	283.52
freedom+	31.32	conclude+	126.06	go	76.07	confirm+	77.70	like	76.63	drug+	86.42
give	34.44	conclus+	75.32	happ+	67.40	contract+	111.66	lot+	62.36	edinburgh	51.02
govern+	135.49	condition+	47.98	her	325.25	country	81.00	make	40.08	engineer+	31.82
had	52.36	crohns_disease+	81.47	herself	30.48	cover+	35.02	me	85.75	financial+	30.21
has	32.05	data	57.90	him	92.75	deafness	62.39	mind+	45.74	firm+	45.24
he	34.86	department_of_health	30.22	his	38.83	death+	132.48	moment+	37.28	for	67.61
health_minister+	43.91	develop+	34.04	home+	231.98	die+	128.90	money	52.68	france	59.47
health_secretary+	119.11	developmental+	93.73	hour+	69.77	disease+	347.41	my	37.22	general+	103.99
hint+	62.39	disorder+	120.42	husband+	111.35	dose+	60.71	nobody	33.09	genetically	32.01
his	162.62	dr_wakefield+	440.60	I	120.52	drop+	33.18	not	60.52	glasgow+	38.89
issue+	122.48	epidemiolog+	35.04	james+	50.03	dropp+	73.49	our	48.37	glaxosmithkline+	67.32
jab+	89.03	evidence	276.05	jamie+	73.74	ear+	32.08	people+	129.39	gmc+	109.79
jacqui_smith	43.67	examine+	38.95	language	61.62	encephalitis	42.98	real+	39.49	gp	513.35
julie_kirkbride	98.09	expert+	87.65	little	40.43	england	31.70	science+	32.37	homoeopath	78.58
labour+	106.42	find	212.92	lose	30.77	epidemic+	295.90	see	31.54	insul+	134.86
leader+	54.50	findings	162.43	louise	34.80	expose+	51.42	seem+	48.49	legal+	86.23
leo+	691.43	finland	39.03	love+	78.55	fall	313.00	simpl+	59.73	lincolnshire	99.74
liam_fox	67.49	gastro_enterolog+	63.80	marri+	50.88	fatal+	77.89	tell	38.91	list+	99.04
liberal_democrats	47.14	genetic+	39.03	me	32.32	fear+	44.27	they	30.39	local+	32.97
matter+	69.16	group+	44.12	month+	132.41	figure+	88.21	thing+	53.45	louth	99.74
media	53.34	gut+	136.62	mother+	91.25	gateshead+	60.07	think	62.13	market+	71.12

Table 4 ALCESTE analysis: significant words with chi-square value of 30 and above by alphabetical order

A '+' sign indicates that this representative word includes other words from the same morphological family as a result of the lemmatisation process.

* This class corresponds to Class D of Analysis 4. Similar content was identified in four of the six analyses conducted.

** This class corresponds to Class G of Analysis 6. Its chi-square values cannot be compared with those of the other classes in this table which come from Analysis 4.

Class A		Class B		Class C		Class E		Personal views and opinions*		Single vaccines**	
Word	Chi-square value	Word	Chi-square value	Word	Chi-square value	Word	Chi-square value	Word	Chi-square value	Word	Chi-square value
member+	32.83	hypothesis	43.92	my	124.95	high+	32.66	trust+	50.81	medicine+	34.42
minister+	205.10	identifie+	35.55	name+	72.07	immunis+	157.73	us	64.76	nhs+	47.62
month_old+	116.23	immune_system+	49.11	normal+	44.28	immunity	91.33	we	60.57	novo+	156.03
mp	99.55	in	45.17	off	37.96	in	80.15	weigh+	38.03	nursing	38.28
mps	48.30	increase+	53.22	old	72.46	infect+	176.57	whitehall+	37.28	obtain+	32.01
mr	335.60	independent+	49.27	picture+	54.62	japan+	57.69	why	36.91	offer+	50.72
ms	42.12	inflammatory	110.29	police+	51.49	kill+	40.67	wish+	67.77	order+	121.61
newspaper+	37.59	international+	34.87	quiet+	41.32	lambeth	76.39	wonder+	55.08	pack+	92.09
offensive	50.61	investig+	64.16	rash	52.87	last+	38.84	wrong+	44.44	pasteur	35.89
on	52.26	john_oleary	61.74	read	33.80	lead	34.40	you	84.28	patient+	156.11
own	57.86	journal+	102.30	room+	50.03	level+	229.03	your	38.69	pay	83.23
parent+	30.60	link+	707.44	round	51.69	lewisham	56.40			payment+	92.09
parliament+	48.11	medical_research_co	49.25	scream+	73.71	london+	33.54			pharmaceutical+	128.81
personal+	64.62	medical+	62.10	she	240.04	low+	292.35			plus	82.00
polic+	92.12	mmr+	181.64	skill+	47.97	measles	597.00			pound+	360.71
politic+	30.07	molec+	46.37	sometimes	30.56	meningitis	100.68			practice+	196.76
political	75.16	new+	52.95	speak	46.32	mild+	30.66			practitioner+	65.99
position+	31.95	no	96.66	speech	150.13	mumps	254.58			price+	45.40
pressure+	53.70	paediatric+	38.82	spend	38.85	national+	56.23			private+	154.63
prime_minister+	414.76	paper+	103.34	stephen	50.03	north	38.13			product+	139.45
privacy	244.85	patholog+	75.85	temperature+	47.97	number+	36.76			provide	32.01
private+	78.57	poss+	44.24	through	35.91	nurser+	41.30			provide	30.85
public+	180.07	professor+	107.76	walk+	70.20	of	46.52			single+	180.59
question+	56.27	prov+	31.12	was	79.12	only	34.32			staff	35.89
refusal	64.22	prove+	51.53	watch+	48.35	outbreak+	408.36			suppl+	92.30
refuse+	132.49	publish+	236.49	week+	35.81	per_cent	486.31			supplier+	43.70
reveal+	57.07	raise+	36.49	when	48.77	pneumonia	38.18			surgery	75.35
right+	74.28	reaction+	35.96	wife+	39.27	polio	31.60			surrey	43.70
say	37.91	regress+	35.55	word+	53.07	population+	33.74			tactic+	40.80
scaremonger+	32.31	report+	72.84	year_old+	73.28	pregnant	32.48			target+	68.41
secret+	38.51	research+	615.46			prevent+	31.22			town	62.67
shadow	62.75	review+	124.57			prim+	48.55			worcester	110.03
should	34.06	rise	59.31			protect+	96.46				
silence+	38.40	royal_free_hospital	187.52			public_health_labor	70.30				
son+	218.93	safe+	70.21			quarter+	62.39				
spokesm+	81.89	sample+	46.37			rate+	227.21				
statement+	58.31	scientific	66.60			recommend+	39.93				
to	39.71	scientist+	59.07			result+	33.71				
tony	409.15	shattock+	36.58			risk+	91.19				
whether	237.72	show	39.37			rubella	153.70				
yvette_cooper+	78.52	studie+	248.54			school+	37.62				
		study	366.96			serious+	94.64				
		suggest+	82.19			shun	34.89				

Table 4 ALCESTE analysis: significant words with chi-square value of 30 and above by alphabetical order

A '+' sign indicates that this representative word includes other words from the same morphological family as a result of the lemmatisation process.
*   This class corresponds to Class D of Analysis 4. Similar content was identified in four of the six analyses conducted.
** This class corresponds to Class G of Analysis 6. Its chi-square values cannot be compared with those of the other classes in this table which come from Analysis 4.

Class A		Class B		Class C		Class E		Personal views and opinions*		Single vaccines**	
Word	Chi-square value	Word	Chi-square value	Word	Chi-square value	Word	Chi-square value	Word	Chi-square value	Word	Chi-square value
		support+	30.81			single+	47.47				
		team+	73.62			south_london+	85.18				
		the	31.96			southwark	56.40				
		the_lancet+	80.84			streatham	42.98				
		theor+	44.64			suspect+	66.36				
		there	43.47			take_up+	171.92				
		trigger+	125.36			target+	39.37				
		universit+	86.39			three	63.52				
		vaccine+	115.50			two	72.48				
		virus	92.93			unprotected	39.26				
						uptake+	236.95				
						vaccinat+	95.40				
						vaccinate+	40.14				
						vaccine+	36.19				
						viral	48.87				
						wales	55.88				
						warn+	74.06				
						year+	123.60				

Table 5 ALCESTE analysis: significant words with chi-square value of 30 and above by decreasing order of chi-square value

A '+' sign indicates that this representative word includes other words from the same morphological family as a result of the lemmatisation process.

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Class A		Class B		Class C		Class E		Personal views and opinions*		Single vaccines**	
Word	Chi-square value	Word	Chi-square value	Word	Chi-square value	Word	Chi-square value	Word	Chi-square value	Word	Chi-square value
blair+	1122.46	autism+	987.83	her	325.25	measles	597.00	I	185.27	gp	513.35
leo+	691.43	link+	707.44	she	240.04	per_cent	486.31	people+	129.39	clinic+	452.23
prime_minister+	414.76	research+	615.46	home+	231.98	outbreak+	408.36	do	100.98	pound+	360.71
tony	409.15	dr_wakefield+	440.60	speech	150.13	disease+	347.41	me	85.75	company+	286.26
mr	335.60	bowel_disease+	378.47	day	139.34	fall	313.00	you	84.28	dr_mansfield+	283.52
privacy	244.85	study	366.96	month+	132.41	epidemic+	295.90	like	76.63	practice+	196.76
whether	237.72	between	301.45	my	124.95	low+	292.35	know	74.07	single+	180.59
son+	218.93	evidence	276.05	I	120.52	mumps	254.58	bse	69.71	dr_copp+	165.24
cherie+	214.62	studie+	248.54	husband+	111.35	uptake+	236.95	am	67.92	doctor+	163.01
minister+	205.10	publish+	236.49	anne	97.44	level+	229.03	wish+	67.77	patient+	156.11
conservat+	192.75	find	212.92	bed+	95.78	rate+	227.21	feel	66.50	novo+	156.03
public+	180.07	royal_free_hospital	187.52	him	92.75	case+	200.77	hand+	65.45	private+	154.63
his	162.62	mmr+	181.64	mother+	91.25	area+	181.74	us	64.76	charge+	153.85
downing_street+	152.36	findings	162.43	boy+	80.77	infect+	176.57	lot+	62.36	product+	139.45
govern+	135.49	gut+	136.62	was	79.12	take_up+	171.92	think	62.13	insul+	134.86
refuse+	132.49	bowel_disorder+	128.66	love+	78.55	immunis+	157.73	we	60.57	pharmaceutical+	128.81
issue+	122.48	conclude+	126.06	go	76.07	rubella	153.70	not	60.52	order+	121.61
health_secretary+	119.11	trigger+	125.36	daughter+	76.03	death+	132.48	simpl+	59.73	worcester	110.03
alan_milburn+	117.12	review+	124.57	jamie+	73.74	die+	128.90	human+	59.09	gmc+	109.79
month_old+	116.23	disorder+	120.42	scream+	73.71	year+	123.60	wonder+	55.08	general+	103.99
labour+	106.42	vaccine+	115.50	year_old+	73.28	below	114.34	it	54.85	lincolnshire	99.74
mp	99.55	inflammatory	110.29	old	72.46	contract+	111.66	thing+	53.45	louth	99.74
accus+	98.61	professor+	107.76	name+	72.07	meningitis	100.68	money	52.68	list+	99.04
julie_kirkbride	98.09	by	104.01	walk+	70.20	protect+	96.46	trust+	50.81	suppl+	92.30
polic+	92.12	claim+	103.37	hour+	69.77	vaccinat+	95.40	fact+	50.57	pack+	92.09
jab+	89.03	paper+	103.34	happ+	67.40	serious+	94.64	is	50.22	payment+	92.09
spokesm+	81.89	journal+	102.30	language	61.62	brain_damage+	94.22	seem+	48.49	administer+	87.00
private+	78.57	bowel+	99.23	gbp	61.58	immunity	91.33	our	48.37	drug+	86.42
yvette_cooper+	78.52	no	96.66	daniel+	58.77	risk+	91.19	go	47.34	legal+	86.23
political	75.16	developmental+	93.73	picture+	54.62	children+	89.73	mind+	45.74	pay	83.23
comment+	74.53	virus	92.93	word+	53.07	figure+	88.21	all	44.82	plus	82.00
right+	74.28	expert+	87.65	rash	52.87	babies	86.01	wrong+	44.44	homoeopath	78.58
campaign+	73.94	universit+	86.39	round	51.69	south_london+	85.18	danger+	43.19	cost	78.23
booth+	69.75	suggest+	82.19	police+	51.49	catch	82.30	life+	42.30	surgery	75.35
family+	69.74	crohns_disease+	81.47	marri+	50.88	country	81.00	how	42.20	market+	71.12
matter+	69.16	the_lancet+	80.84	james+	50.03	in	80.15	beef	42.07	target+	68.41
advice	68.24	patholog+	75.85	room+	50.03	fatal+	77.89	make	40.08	for	67.61
liam_fox	67.49	conclus+	75.32	stephen	50.03	confirm+	77.70	deal	39.56	glaxosmithkline+	67.32
personal+	64.62	college+	73.70	when	48.77	lambeth	76.39	real+	39.49	animal+	65.99
refusal	64.22	team+	73.62	watch+	48.35	warn+	74.06	tell	38.91	diabetic+	65.99
shadow	62.75	report+	72.84	skill+	47.97	dropp+	73.49	your	38.69	practitioner+	65.99
hint+	62.39	safe+	70.21	temperature+	47.97	complic+	73.26	weigh+	38.03	town	62.67
confid+	61.86	autistic	66.90	speak	46.32	two	72.48	moment+	37.28	france	59.47

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Table 5 ALCESTE analysis: significant words with chi-square value of 30 and above by decreasing order of chi-square value

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Class A		Class B		Class C		Class E		Personal views and opinions*		Single vaccines**	
Word	Chi-square value	Word	Chi-square value	Word	Chi-square value	Word	Chi-square value	Word	Chi-square value	Word	Chi-square value
answer+	61.40	scientific	66.60	afford+	44.79	public_health_labor	70.30	whitehall+	37.28	british_medical_asso	54.75
controvers+	59.88	investig+	64.16	couple+	44.42	compare+	68.46	my	37.22	abroad	53.42
statement+	58.31	gastro_enterolog+	63.80	normal+	44.28	cluster+	66.66	why	36.91	edinburgh	51.02
own	57.86	medical+	62.10	eye+	41.60	suspect+	66.36	care+	35.28	offer+	50.72
reveal+	57.07	john_oleary	61.74	bright	41.32	three	63.52	future	33.09	act+	49.21
question+	56.27	rise	59.31	claud+	41.32	deafness	62.39	nobody	33.09	council+	48.47
leader+	54.50	scientist+	59.07	quiet+	41.32	quarter+	62.39	science+	32.37	dr	48.08
pressure+	53.70	data	57.90	little	40.43	dose+	60.71	kind+	31.97	nhs+	47.62
media	53.34	increase+	53.22	wife+	39.27	gateshead+	60.07	see	31.54	director+	46.59
had	52.36	new+	52.95	spend	38.85	japan+	57.69	accept+	31.22	price+	45.40
on	52.26	cause+	52.67	his	38.83	lewisham	56.40	they	30.39	firm+	45.24
offensive	50.61	prove+	51.53	behaviour	38.81	southwark	56.40			advice	44.84
mps	48.30	independent+	49.27	baby+	38.44	national+	56.23			bully+	43.70
parliament+	48.11	medical_research_co	49.25	off	37.96	wales	55.88			supplier+	43.70
liberal_democrats	47.14	immune_system+	49.11	fine+	37.17	a_year	51.75			surrey	43.70
challenge+	45.02	condition+	47.98	after	37.03	are	51.51			tactic+	40.80
health_minister+	43.91	molec+	46.37	begin	36.26	expose+	51.42			cash+	38.89
jacqui_smith	43.67	sample+	46.37	through	35.91	clapham+	51.39			glasgow+	38.89
ms	42.12	in	45.17	week+	35.81	viral	48.87			nursing	38.28
choice+	39.94	theor+	44.64	louise	34.80	prim+	48.55			course+	37.37
to	39.71	poss+	44.24	mrs	34.64	single+	47.47			pasteur	35.89
secret+	38.51	group+	44.12	read	33.80	of	46.52			staff	35.89
silence+	38.40	hypothesis	43.92	cold+	32.62	fear+	44.27			medicine+	34.42
say	37.91	there	43.47	me	32.32	britain+	43.37			book+	32.97
newspaper+	37.59	and	42.44	communic+	31.65	encephalitis	42.98			local+	32.97
christmas	36.06	committee+	39.74	forbes	30.99	streatham	42.98			genetically	32.01
battle+	35.85	show	39.37	few	30.77	childhood	42.00			obtain+	32.01
bbc+	35.85	finland	39.03	lose	30.77	nurser+	41.30			provide	32.01
choose	35.38	genetic+	39.03	sometimes	30.56	kill+	40.67			engineer+	31.82
he	34.86	examine+	38.95	herself	30.48	vaccinate+	40.14			run	30.85
give	34.44	paediatric+	38.82			recommend+	39.93			consult+	30.67
should	34.06	causal+	38.42			target+	39.37			financial+	30.21
decision+	33.09	children+	36.80			unprotected	39.26				
member+	32.83	shattock+	36.58			last+	38.84				
scaremonger+	32.31	raise+	36.49			pneumonia	38.18				
has	32.05	analysis	36.02			north	38.13				
position+	31.95	reaction+	35.96			school+	37.62				
freedom+	31.32	identifie+	35.55			blindness	37.19				
discuss+	31.19	regress+	35.55			number+	36.76				
parent+	30.60	epidemiolog+	35.04			vaccine+	36.19				
politic+	30.07	international+	34.87			among	35.83				
		develop+	34.04			cover+	35.02				
		brain+	33.17			shun	34.89				

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Class A		Class B		Class C		Class E		Personal views and opinions*		Single vaccines**	
Word	Chi-square value	Word	Chi-square value	Word	Chi-square value	Word	Chi-square value	Word	Chi-square value	Word	Chi-square value
		american+	32.80			lead	34.40				
		carrie+	32.77			only	34.32				
		america+	32.60			population+	33.74				
		adverse+	32.59			result+	33.71				
		brit+	32.15			london+	33.54				
		commission+	31.99			average	33.18				
		the	31.96			drop+	33.18				
		prov+	31.12			can	33.14				
		support+	30.81			high+	32.66				
		department_of_health	30.22			pregnant	32.48				
						ear+	32.08				
						boost+	31.70				
						england	31.70				
						polio	31.60				
						against	31.31				
						prevent+	31.22				
						mild+	30.66				
						age+	30.34				

Appendix 5

Interview summaries

Appendix 5A: Exemplar "Science is enough" (Participant 06)

Interview notes

When started to discuss her professional background, realised that we knew someone in common. We talked about this person for a few minutes and this section has been deleted from the transcripts as it was not relevant to the conversation and could have contravened the anonymity principle.

Interesting comments about becoming a mother as, in her case, was accompanied by her daughter having quite a severe case of jaundice and having to undergo phototherapy treatment.

Also talking about those 'organic freaks'. Does not want to be part of them. Comes across as a 'reasonable' individual maybe keen to be seen that way.

First participant to discuss the role of culture in people's attitudes towards medicine. Comes from a Southern European tradition where the doctors are much more respected than here. Again raises the issue of having an authority in which to believe. Things then become a non-issue (heuristic rule). The authority replaces all the questioning, the investigation that some people feel a need to do. Keeps mentioning that they are the professionals. But sees that also elsewhere like when she speaks about her clients when she was working.

Argument summary

Participant 06 was aware of the MMR controversy but was not very concerned about it. However, she took advantage of a visit to her paediatrician back in Portugal to discuss it and ask for advice. She had also discussed it with her local health visitor. In both cases, the advice was to go for it, which she happily did. In particular, she trusted her Portuguese paediatrician because she trusts her completely thanks to her wide experience and the positive experience she had had with her. She is also pro-vaccination and has given her children all the vaccinations on offer in this country plus others that are given in Portugal.

She did not see the point in going for separate vaccines, even though some friends of hers in the UK went for them, as they involve an unnecessary increased amount of pain (three injections as opposed to one).

Claim:	I did not have any problems in giving the MMR to my child despite being aware of the controversy that existed about it in this country.
Data:	Portuguese paediatrician told me that there was no danger linked to the MMR and to go for it.
	Links (if any) are very small and there is no evidence that it does cause autism.
	It's a lot worse if you don't give the vaccine because they are not protected against illnesses.
	You have to trust someone.
	No one in southern Europe questions vaccinations and everyone is fine.
	The MMR controversy was probably a media thing.
	The MMR controversy was probably fed by over-anxious mothers.
Warrant (since):	Life would be unduly complicated if you could not rely on the expertise of people you trust.
	I think it is best to have a pragmatic attitude to life and not to worry too much.
	Vaccinations are effective at protecting people against diseases.
	I fully trust my Portuguese paediatrician because she has a wide experience; she is the director of paediatrics at her hospital and has dealt with my children very expertly.
	One has to trust doctors, as they are the ones who know and are the professionals.
	I remain attached to my country of origin's way of doing things.
	There is much sensationalism in the British media.
Backing (because):	There is a different attitude to doctors in southern Europe whereby doctors are more easily trusted.
	Too much information can be bad because it makes you worry about unnecessary things.
	Doctors who are hospital-based have a very good experience because they are exposed to all sorts of cases.
	I come from a closely-knit family.

Summary

Ethnic origin

The participant is Portuguese and married to an Italian.

Socio-economic background

Used to work in market research but gave up her job when she had her first child due to the amount of travel her job involved.

Other personal circumstances of interest

The gap between her two children is very small (19 months) which means it would have been difficult for her to go back to work.

Attitudes to family

Comes from a small but closely-knit family. Decided to give birth in Portugal because would be near her family. Also pays attention to what her parents and grand-parents have done in terms of living their life, etc.

Views on motherhood

Would not have imagined her life without children although, in both cases, they came as a surprise. Gave up her job after her first child because of the amount of travelling it involved.

Tries to do a good job as a mother eg, care she puts into food.

Cultural influences

Participant herself recognizes the impact her country of origin may have on eg, how she perceives the food she buys here and her relation with her doctors. For instance, she sees a paediatrician in Portugal every time she goes back and she gave birth to her two children there because her family is there but also because she knows 'how things work there.' She also comments on how people in Southern Europe have a different relationship to their doctors by which they accept what they say more easily.

She also mentions the fact that there are more vaccinations there that are standard and compulsory compared with the situation in this country and how this has influenced her thinking on the MMR issue.

Need to know

Limited 'need to know' due to lack of time and belief that too much information is not good and may make you think that 'everything is not good.' Indeed, she reiterates this view that it is not good to question too much quite often during the interview, eg, 'you have to know where to draw the line'; 'It's quite hard to say because if you ask for lots of information, I think it all blows out of proportion.'

Perception of one's own abilities

Not mentioned but comes across as an intellectually articulate person.

Issues of concern (outside MMR)

Food-related issues. For instance, worries about the origin of some of the foodstuff in this country. However, puts the blame for the widespread concern about food in this country on the fact that people eat too many ready-made meals and not enough fresh food.

As for health-related issues, describes herself as quite relaxed about this.

Decision concerning the MMR

Has vaccinated her eldest child with the combined vaccine.

Was MMR an issue?

Not really. Very slightly concerned because of media coverage the issue had received in this country and due to some discussions she had with other mothers she knows. Her concern was significant enough for her to discuss the issue with her Portuguese paediatrician.

Social pressures in the context of MMR debate

Discussed the MMR controversy with mothers she met at playgroups etc. but did not seem to influence her.

Sources of information used within MMR context

Portuguese paediatrician and local health visitor.

Decision-making process within MMR context

Asked for and followed the advice of a trusted individual, in this case, her paediatrician (and also her local health visitor), a decision-making process she is keen to follow in most similar situations.

Type and nature of key arguments used for MMR decision

The advice of her Portuguese paediatrician whom she trusts fully was the key decision factor. Trust in this case was based on her doctor's qualifications, responsibilities, past experiences with the participant's children. Also, to a lesser extent, because single vaccine alternative would have been uncomfortable for her children (too many jabs involved).

Also thought that all children in Portugal are having it and there does not seem to be any problem.

Views on the MMR debate

Believes the controversy was mainly media-led because of the sensationalist nature of media in this country. Also a reflection of British people's greater tendency to question.

Views on the media

Not really discussed except for previous point.

Views on vaccination in general

Thinks it is very important to be protected against illnesses. Did not see the point in paying large sums of money to have the separate vaccines.

Views on autism

Not really discussed except for the alleged link between the MMR triple vaccine and autism.

Views on the medical profession

Highly values her Portuguese doctor because of her thoroughness, experience and qualifications. Especially appreciates the fact that she's hospital-based because of the width of experiences it gives her.

Views on alternative medicine

Would and has gone to alternative practitioners in situations where conventional medicine did not seem to work and thinks she will do it more and more thanks to the positive experiences she has had so far. Also likes the fact that it is based on 'natural methods', by which she means 'not using drugs or medication.' But would always go to consult a 'traditional' practitioner first.

Views on authorities

Very respectful of professionals, of people who know. Applies this principle to all sorts of situations (eg, when she was working).

Views on science

Not discussed apart from what is applicable to medicine.

Behaviour concerning other health problems

Manifests a certain amount of superstition eg, "In terms of health, I knock on wood." Otherwise, very pragmatic-minded with emphasis on eating well, in moderation and having 'open air.'

Sources of information in other contexts

Not really discussed.

Decision-making process in general

Believes in trusting relevant people who deserve her trust because, in the case of health-related issues at least, of their experience and knowledge.

Other thoughts

Comes across as pragmatic-minded. For instance, the way she talks about her attitudes to food and her children. Bases herself on her own experience as a child

and the fact that 'we've all survived.' Talks of not wanting to 'go down a route where you create lots of problems in your head' by not trusting people who know.

Does not want to be categorized as an 'organic freak.' Also mentions how some people are 'obsessed' with the MMR issue and how she thinks it is not correct.

Appendix 5B: Exemplar "Science is enough but…" (Participant 04)

Interview notes

P04 is Australian and this time has been in the UK for three years. However, this is her third stay in the country and altogether she has spent nearly six years here.

She used to work in marketing but recently stopped, taking advantage of a redundancy package and taking some time to take care of her 17 month-old son.

She seemed quite keen to take part in the interview and sounded as if she was welcoming this opportunity to do something different and to chat with someone. She was very chatty and initiated the conversation about the MMR vaccine on her own.

Her status as a foreigner exemplified some of Schutz's thoughts in *The Stranger*. The decision-making process she used for the MMR highlights the importance of identity-related processes in the workings of cognitive polyphasia.

Very equal relationship between interviewee and interviewer. At the end of the interview, she was asking me questions about my research.

Shows a very high need for cognition.

Argument summary

Was worried about the MMR vaccine because of the media coverage but, as a rule, had always been quite in favour of vaccination. Decided to give it to her son after much thinking and reading, something she does generally for any type of issue. However, clinching argument was that it was the same vaccine the participant had received as a child and that everyone back in Australia was giving it to their children without any problem. From that and things she had read, reasoned that the risks of anything wrong with the vaccine, in particular of contracting autism, were much lower than the risks associated with childhood diseases. Also subscribed to the views that the benefits of immunization for the

community far outweigh the individual risks, an idea that was reinforced when she heard the news about the mumps outbreak in some places around the UK.

In addition, became suspicious of Wakefield's intentions after seeing some media reports on him and thought that his study was not conclusive at all. Blames the media for inflating the controversy especially by playing with audience's emotions.

Was not tempted to go for separate vaccines because of the additional pain involved in having three as opposed to one injection.

Claim:	MMR is a good vaccine to give my child despite all the media coverage to the opposite.
Data:	The MMR vaccine is the same as the 'triple antigen' children have been receiving in Australia since the participant was a child.
	There was an outbreak of mumps in the UK and the take-up rate has decreased dramatically since the media started to discuss the MMR controversy.
	The number of children developing autism as a result of MMR vaccine (if link is proven) is very small.
	None of the children I know who have received the MMR vaccine (including myself and my friends) has suffered from it.
	The risks of harmful side effects from childhood diseases are much higher than the risks of developing autism from the MMR vaccine.
	The MMR controversy was just a media hype.
	Wakefield's study was not 'quite right' and never conclusive.
	The information communicated by the media is tainted by their political, hidden agendas.
Warrant (since):	One needs to look at the bigger picture (community) as opposed to limiting it to one's particular interests.
	It's irresponsible for parents not to give the MMR to their children and leave them at risk of contracting these diseases that can have dangerous side effects.
	One has to go for the best decision possible at the time and hopes this is for the best.
	We should feel lucky now that most contagious diseases are a thing of the past.
	I can trust the information coming from friends and relatives.
	One should try to get rid of the emotional aspect of an issue and come up to a conclusion of one's own using as much information as possible.

	Wakefield comes across as a questionable person and seems to have hidden agendas.
	The media (with some exceptions who have tried to present a more balanced view) are blowing things out of proportion; are trying to scare people; and are playing on people's emotions.
Backing (because):	The potential risks of an outbreak are far more damaging to a society than the small risks (if any) of autism.
	Childhood diseases can have dangerous side effects.
	Many contagious diseases (eg, polio) have been annihilated thanks to vaccination programmes.

Summary

Ethnic origin

Australian but has been living in the UK for some six years altogether but will probably go back to live in Australia.

Socio-economic background

Seems relatively well off. Living in the UK as an expatriate. Used to work in marketing.

Other personal circumstances of interest

From her comments about her daily routine, seems to have quite a structured life and, indeed, it is something she seems to value.

Attitudes to family

Seems to value the idea of having a family around her. Would be one reason why they would go back to live to Australia. Also respects a lot the advice she gets from her relatives.

Views on motherhood

Would like to go back to Australia to give her son the quality of life she had as a child. Really values the lifestyle she had there and wants to offer him the same.

Following the advice of her parents, keen to give her son a routine so that both parties know what to expect.

Makes the effort of taking her son to places where he can meet many children, as he seems to really enjoy these occasions.

Cultural influences

Much influenced by what is happening in Australia, child-rearing practices, etc.

Need to know

Seems to have a very high need to know on several issues (eg, child development, her pregnancy). But will not investigate issues before they come her way (ie, not overly anxious).

Went to much length to find information on the MMR issue (eg, internet) and says that she did not find that many things at the doctor's.

Perception of one's own abilities

Describes herself as being quite shy and not very keen on discussing 'shallow things'. Comes across as quite a 'serious' girl (my own perception). From what she says about the ideal sources of information, obviously thinks that she is able to understand scientific type of information.

Issues of concern (outside MMR)

Issues related to her son's development such as the fact he is not walking by the age of 17 months or his teeth development, etc.

Decision concerning the MMR

Gave the MMR to her son. Took on herself to take him to the surgery to have it, as the clinic did not approach her to do so beforehand.

Despite her conviction that she wanted to go ahead, was very relieved when it was over. Thinks it is more stressful to make the decision than actually to implement it.

Was MMR an issue?

Yes, to the extent that the publicity surrounding it made her read a lot about it and discuss it with various people before making a final decision even though she was sure from the start that she would give it to her son.

Social pressures

Does not have a big network of friends because used to work prior to having her son. May partly explain why she relies on her Australian network of friends and relatives for advice with whom she is still very much in touch.

Sources of information used within MMR context

Read several things and tried to go to the actual research. Got pamphlets from doctors. Looked up on the internet. Talked to friends in this country and to friends and relatives back in Australia.

Decision-making process within MMR context

Read as much as possible, talked to different people and then used her 'gut feeling' to reach a final decision.

Thinks it is important not to get caught in the frenzy and that, after having taken everything on board, one will get a 'feel' for what is right to do for oneself.

Type and nature of key arguments used for MMR decision

Relied to a large extent on the fact that she and everyone she knew as a child had been vaccinated with the MMR vaccine back in Australia (described this as her clinching argument). This argument was reinforced by the fact that there had been a resurgence of mumps in this country when she came back from Australia.

Thought in terms of the risks attached to measles, mumps and rubella compared to the very low risk, as far as she could make up, of getting autism from the vaccine, and the fact that the study was not conclusive.

Seems to have been influenced by reports at the end of 2004 - beginning of 2005 that brought much doubt about Dr Wakefield himself and his intentions in this controversy.

Also impressed by the argument put forward in official literature concerning the good of the community versus the individual risks. Says that she was impressed by the scientific type of arguments.

Views on the MMR debate

At some point, thought it was only a 'media hype'. Suspects also that Wakefield had a hidden agenda, something to do, for example, with money.

Thinks that the debate took such proportion because dealing with children, which she describes as one of the 'pressure points' for her and for society in general.

Views on the media

Sees the media as being there to scare people and blow things out of proportion, something that is especially to do when dealing with sensitive subjects such as children. Thinks that media have hidden agendas and that these agendas are often politically led. Thinks that they do not engage into enough research before coming out with the stories. But acknowledges that they did present the perspective of people that were contesting Wakefield's findings.

Views on vaccination in general

Thinks it is a very good thing. Thankful for its effect on annihilating serious childhood diseases.

Did not go for separate vaccines because of the additional pain (from the needle) that would have been involved for her son.

Views on autism

Describes it as a very emotional issue.

Views on the medical profession

Does not like to use antibiotics when not necessary.

Views on alternative medicine

Would use it for minor ailments even on her son.

Views on authorities

Very suspicious of political establishment. Thinks they always have hidden agendas.

Views on science

Not really discussed but from her answers on other topics, seems to value scientific-type of information.

Behaviour concerning other health problems

Only discussed her decision about the circumcision of her son. In this case, followed a similar decision-making process as with the MMR and other topics, i.e. discussed it with friends, read much about it and made up her own mind.

Sources of information in other contexts

Reads and buys many books to investigate issues and also looks up things on the internet. Her mother seems to provide her with much advice (eg, on making friends with other mothers). Plus she has a couple of friends who already have children whom she calls for advice. Also relies on her intuition (eg, her son is like her husband).

Likes to get different perspectives on issues of concern and to read the actual scientific research that went in them.

Decision-making process in general

Likes to work things out for herself. Thinks it is important to step away from controversies and come up with your own conclusions. In this regard, regrets the existence of rules or guidelines on parenting that would make it easier for people to reach decisions.

Recognizes that several issues are very emotional because they are dealing with children, the elderly, etc. but thinks that one should be able to put that emotional

aspect aside and evaluate the different aspects of the issue on a more rational basis. For instance, acknowledges that with autism it is difficult to put the 'images' aside but thinks it is very important to do so and to look at the whole debate on a more rational basis.

In general, very systematic about the way she makes a decision in the way she looks at an issue from different perspectives on a very thorough basis. But then, once she has gone through all this, uses her 'gut feeling' to make up her mind. For her, this 'gut feeling' is somehow what one's heart or sub-conscious tells one after having gone through all the information that is available. Believes that, at this stage, one knows that one has made the right decision. Also, this 'gut feeling' is seen as a good way to get rid of the emotional side of issues. Afterwards, sees no point in regretting what has been decided.

Thinks that her decision-making process may have been influenced by how her parents operate. For instance, her mother seems to follow a very similar process. Acknowledges that it may seem like procrastination for some people.

May not go to the same extent of research if she lived in Australia because could rely more on a network of friends and relatives but reckons that she would still research issues to a considerable extent because does believe that everyone is different and may not have the same perspective on things as she does.

Other thoughts

Although very respectful of scientific type of information and with a high need to know, this participant has also relied on 'anecdotal' type of information to make up her mind about the MMR vaccine and, indeed, used it as her clinching argument.

The systematic nature of her decision-making process seems to be a way to get rid of the emotional aspect she acknowledges to have and which she thinks is not appropriate in those sorts of issues.

Appendix 5C: Exemplar "Science is not enough" (Participant 17)

Interview notes

18-month son could not sleep. Getting hungry. Had to cut the interview short at some point because could see that the child needed to eat urgently.

Interviewee looked very insecure. Always asking if it was fine to speak the way she was. Had to reassure her on numerous occasions.

MMR vaccination is a big issue for this interviewee. She is making quite a lot of effort in trying to find the arguments that will convince her one way or another. Going through a real dilemma due to different and conflicting pressures coming on to her. Political knowledge playing a role here as well through her views on the government and on the pharmaceutical companies. Added to this are her religious views.

Wynne's concept of uncertainty is playing a role here in the sense that the interviewee sees the possibility of science getting it wrong ('there is still an error involved').

Argument summary

This participant's discourse was characterised by much confusion, contradiction and uncertainty about the best course of action concerning vaccination in general and MMR vaccine in particular and she, herself, admits that she is in a complete dilemma concerning this issue. One example of this confusion is found in the fact that she has two groups of friends, one of which is linked to her Buddhist practice, is very much into alternative medicine and against vaccinations, whilst the second lot comprises mothers she has met since her son was born, who live in her neighbourhood and who have all gone for the combined vaccine.

Claim:	There is definitely something clouding the MMR issue and I am totally confused about it. On one hand, I don't want to give the MMR vaccine to my son. On the other hand, I'm not that sure about it. The only thing that would totally convince me to go ahead would be for the Dalai Lama to come out in favour of it (something which, I know, is totally impossible).
Data:	There has been much media coverage of the MMR controversy highlighting the link to autism and there has been an independent study confirming this link. My son developed the whooping cough 10 days after receiving his DTP vaccine and this has shattered my confidence in vaccines since I am convinced he developed it because of the vaccine. I don't believe Tony Blair when he says the MMR vaccine is safe. The Dalai Lama has much wisdom, compassion and a deep understanding of things. I had a university friend who was one of the first ones to receive the MMR vaccine and had Asperger's syndrome. My instinct is telling me not to give the MMR vaccine to my son. I am considering giving my son the homeopathic alternative to the MMR. Some of my 'alternative' friends, and my mother, are against the MMR vaccine and other vaccines as well. However, the mothers I have met since my son's birth have all given it. My mother did not give me the whooping cough vaccine because of the controversy that surrounded it at the time, back in the 1970s. I still believe in science and the principles behind it. However, even independent scientists can get it wrong. The MMR vaccine is given around the world and is a great thing if it protects children against these diseases that present serious risks. But I'm not sure that MMR does really help. Vaccines are brilliant at protecting against illnesses and measles, mumps and rubella are diseases that have serious risks. Giving a live vaccine is dangerous. My husband thinks that our son should eventually be vaccinated but agrees it is a difficult decision to make.
Warrant (since):	The health professionals who gave my son the whooping cough vaccine refused to acknowledge that he developed the illness because of the vaccine. The strains of mumps, measles and rubella have changed. I am not a very conventional mother. I converted to Buddhism and am quite a religious person. I am allergic to a number of substances and I think this could increase my son's risks of a reaction. Tony Blair did not come clear with respect to his son Leo and whether or not he had received the MMR vaccine.

	My university friend's mother was convinced her son's mild autism was linked to the vaccine.
	I'm much more likely to believe an independent study than one sponsored by the government.
	I believe in alternative approaches to medicine (although this does not mean I do not approve of conventional medicine).
	My mother is a nurse.
	Some of the mothers I know have done a thorough research before deciding about the MMR.
	I believe one should believe one's instinct, especially with children.
	Scientists are only humans and are, therefore, subject to errors.
	Conventional medicine has done and continues to do a lot of good.
Backing (because):	I am still breastfeeding my 18-month-old son and he still sleeps with us.
	Tibetan Buddhism encourages the use of conventional and alternative medical approaches.
	I come from a closely-knit family.
	My gut instinct (or my 'wisdom') has served me very well in my life so far. My gut instinct was telling me that my son had developed whooping cough.
	There is some conspiracy going on between the health authorities and the big pharmaceutical companies.

Summary

Ethnic origin

English national. However, her father was born on a kibbutz in Israel and she is married to a Catholic man.

Socio-economic background

Full-time mother. Seems relatively well off and lives in a pretty little house in a London suburb.

Other personal circumstances of interest

Relatively young at 27, this participant has one son who is 16 months old. Went to university to study psychology. The participant has a very interesting religious background. She is of Jewish origin but converted to Buddhism a few years ago.

She defines herself as a religious person. In addition, she is married to an Irish Roman Catholic man and her son is Catholic.

The participant was not vaccinated as a child against whooping cough because it coincided with the major controversy about that vaccine in the 1970s.

Attitudes to family

Very close to her parents and to her relatives (eg, she goes to see her grand-father every week). Her mother is a nurse.

Views on motherhood

Describes herself and her husband as not very conventional parents. For instance, her son still sleeps with them and she is still breast-feeding him. Seems to be very devoted to her son and willing to do everything she can for him. This applies, for instance, to his diet, which seems very good and comprises almost exclusively home made food. Often speaks in terms of 'we' possibly to highlight that her husband is very much involved in their son's upbringing.

Cultural influences

Her religious 'situation' is quite unusual and seems to have a great influence on her as will become evident when she talks about the Dalai Lama. She also believes in Karma and, therefore, that anything that happens to us is the result of past actions.

Need to know

Mixed picture.

Perception of one's own abilities

Thinks that she should have done some research on the internet but then adds that she would not know where to begin.

Issues of concern (outside MMR)

Not discussed.

Decision concerning the MMR

By the time of the interview, her son had not yet been vaccinated with the MMR and the participant was still very uncertain about what to do.

Was MMR an issue?

Yes, it is still very much so.

Social pressures within MMR context

Friends that she meets through her meditation classes and who are totally against vaccination have influenced her through their questioning of the validity of the MMR vaccine.

On the other hand, the mothers she has met through baby groups have all given the MMR combined vaccine to their children, some of them, after having done much research.

Her husband is also undecided although he seems to think that their son should be vaccinated at some point. Does not seem to be putting much pressure on the participant to make a decision.

The participant's mother, however, appears to be against vaccination programmes (despite the fact that she is a nurse) and she did not even want her grandson to receive the whooping cough vaccine.

Sources of information used within MMR context

Has read newspaper articles and asked advice from her friends who are into alternative medicine and has read the literature they have given her. Also spoke to alternative practitioners (eg, homeopaths).

Decision-making process within MMR context

At the time of the interview, the participant was totally confused about what to do. She had received conflicting advice from many people. Describes herself as being in a dilemma and says that this is why she has not done anything about it yet.

Type and nature of key arguments used for MMR decision

The participant's decision over the MMR vaccine has been significantly affected by what happened to her son after she took him for his first DTP injection at the hospital. Further to this injection, her son developed whooping cough. The hospital and the doctors have denied that it was linked to the vaccine but the participant is convinced that it was as there are a few suspicious things that happened at the time (eg, could not find his vaccine, finally found one and mixed it in front of her). Wonders if they did not give him the content of two 'valves' by mistake.

The participant has also been influenced by the media reports about a possible link between the MMR and autism and she does not believe Tony Blair when he says that it is perfectly safe. In particular, she thinks that there is something 'fishy' in the fact that he has not said whether his son had received it.

Her doubts about the vaccine have also been affected by the fact that she had a friend at university who was one of the first children to be given the MMR and is mildly autistic. This friend's mother has always blamed the MMR vaccine for his condition and this is something that has marked the participant.

Her doubts about the vaccine have been reinforced by the views of some of her friends who are very anti-vaccination and support alternative approaches to medicine (which she does to a large extent). These friends have given her literature about vaccines that argues that the MMR vaccine is not effective anymore as the measles, mumps and rubella viruses have changed and become resistant. However, she is not totally convinced by it and wonders if these assertions are backed by solid evidence.

Finally, her gut instinct (later on she calls it 'her wisdom') is telling her not to give it to her son. On the other hand, she is aware of the side-effects of these childhood diseases and would not forgive herself if anything serious happened to her son as a result of not having been vaccinated. She also realises that the vaccine is being given to children throughout Europe and America.

She is contemplating the alternative solution of giving her son homeopathic remedies to boost his immune system.

Most convincing argument would be if the Dalai Lama came out in favour of the MMR vaccine. Understands it is not possible but says that this would convince her because she fully trusts him and thinks he has a great wisdom, compassion and a deep understanding of things in a way that scientists or government officials do not have.

Decision about the MMR is made more complicated by the fact that her son is a different person to her and that she can't control his body like she can hers. But is convinced that she would not have it done if it were for her.

Would have liked the official literature on the MMR vaccine to give more than one viewpoint from a number of studies. Would also have liked health professionals to show more empathy when discussing the vaccine with her and not only to be towing the official line.

Views on the MMR debate

Attributes the extent of the controversy to the media hype that has surrounded it. However, also thinks there have been independent studies supporting the possibility of a link with autism.

Later, says that there is something clouding the MMR vaccine, brought about by the media reports and those friends who support alternative medicine, which means that she just cannot trust it even though it may be very good at protecting children from these three childhood diseases.

Views on the media

At some point during the interview, mentions that her fears about the MMR are probably linked to the 'media hype' that has surrounded it.

Views on vaccination in general

Was very apprehensive about childhood vaccinations, in particular the ones babies received at two, three and four months because she is allergic to antibiotics.

However, overall, thinks that vaccines are very good as they protect people from dangerous diseases.

Views on autism

Not discussed.

Views on the medical profession

Trust in medical profession has obviously been eroded by what happened to her son when he developed whooping cough after being vaccinated against it. Went to see four doctors who did not diagnose it and had to go twice to the casualty department before they perform the tests that were needed. Health professionals later denied it had anything to do with the vaccine. Was never told properly by the hospital that her son had whooping cough and only knew about it when she received a phone call from the Department of Health. Then had to be quarantined with her son and a few weeks later the participant herself developed whooping cough.

Views on alternative medicine

Has always been very much supportive of alternative approaches to medicine, although this does not prevent her from using conventional medicine when needed. Belief in alternative medicine was reinforced when she went to India and was treated for 'beriberi' with Tibetan medicine, and on other occasions when alternative approaches helped her to get better.

Due to her religious beliefs, also thinks that the mind has a major role to play in the body's health or illness. Because of this, would always combine conventional medicine to meditation in order 'to tame the mind' and help cure the illness.

Views on authorities

Does not trust information coming from the government. Relates this mistrust to her belief that big pharmaceutical companies are making a lot of money from the vaccines and that they would not really care if a few children were affected as a result of receiving it.

Views on science

Participant believes in scientific methods. For instance, she mentions on a few occasions that she questions the evidence behind this or that assertions concerning the MMR vaccine. However, in communications related to the MMR vaccine, she will question information coming from government-related scientists (see 'views on authorities') and even in the case of independent scientists, she would still be doubtful of the value of the information provided because of the risk of getting it wrong ('he or she is just human'). On the whole, however, more likely to believe independent studies than the ones sponsored by government.

Makes a distinction between good science, which is used to cure illnesses and to make good and negative science, which is used to make nuclear bombs, etc.

Behaviour concerning other health problems

Quite keen to follow her gut instincts when she deems it is appropriate. For instance, she did not give the antibiotics the doctor prescribed her son when he developed whooping cough because she could feel it was not appropriate even though they did not know at the time what it was exactly. Says that hers and her mother's gut instinct were telling them that her son was suffering from whooping cough.

Sources of information in other contexts

Not discussed.

Decision-making process in general

Thinks it is important for her to 'follow on her own wisdom', 'to look into ourselves for the answers to things.'

Appendix 5D: Exemplar "Narratives are enough" (Participant 18)

Interview notes

Reading *The Sun* newspaper. Looks like her main source of information. Six month-old baby girl has already her ears pierced. Little boy came back from a walk with his dad at some point with a bag of crisps in his hand. His father is a lorry driver.

Participant 18 contradicts herself with respect to the MMR. At first, she says that she didn't want her son to have it because of 'the medicine' but then she says that people should have it. Maybe a question of timing with additional news coming in between the time prior to her son's vaccination and the time of the interview.

Argument summary

This participant's discourse contains a number of contradictory statements making it difficult to identify the gist of her argument and its components. For instance, at some point, she said that she had not wanted to give the MMR vaccine to her son at all because she did not want to give him 'medicine' and because of the pain due to the injection. However, gradually over the course of the interview, it emerged that she had been impressed by the media coverage of a link between the MMR vaccine and autism. This led her to consider the separate vaccines option but due to problems with their supply and the fact that it would be easier to have it done in one go, she decided to give her son the MMR combined vaccine. She was also influenced by a number of other factors but a major one seems to have been that she did not want her son to pass on the rubella virus to her sister and a friend who were pregnant at the time.

Participant 19 did not discuss the issue with other people, as she tends to prefer to make up her own mind. Most of her arguments, if not all of them, are based on anecdotal or narrative evidence.

Claim:	Despite talks of links with autism, it was best to give my son the MMR combined vaccine.
	The combined option is easier than the separate ones.
	Overall, the MMR was not really an issue for me.
Data:	My sister and a friend were pregnant at the time my son was due for his MMR vaccine.
	I know many children who have received this vaccine and who are all fine.
	There were problems with the supply and the effectiveness of some components of MMR separate vaccines.
	I do not like the idea of giving 'medicine' to my son and of inflicting him some pain.
	I did not go to any length to find out more about the MMR vaccine.
Warrant (since):	If vaccinated, my son will not be able to pass on the rubella virus to pregnant mothers.
	Injections are painful.
	Children can get really ill from childhood diseases.
	I did not really believe there was a link between the MMR and autism.
	I have a relaxed attitude to child-related issue.
Backing (because):	The MMR provides effective protection against measles, mumps and rubella (hidden premise).
	I trust my own judgement.
	The media are scaremongering people.
	It is up to me to make a decision, sometimes in conjunction with my partner.
	I trust doctors.

Summary

Ethnic origin

British from London.

Socio-economic background

Participant is a hairdresser and would like to go back to work soon, but only when her children are bigger. Her partner is a lorry driver. At the moment, they live in a relatively small flat but are in the process of buying a house outside London.

Other personal circumstances of interest

Has two children: a boy of two and a little baby girl who is six months old. Seems very relaxed about various issues in her life. For instance, she lets her son eat more or less what he wants to (eg, crisps, salami) because he does not really like to eat.

Comes across as very independent-minded and opinionated.

Attitudes to family

Not really discussed but seems relatively close to her family (eg, sister who was pregnant).

Views on motherhood

Likes looking after her children but gets bored sometimes because they are still quite young and she has no one to talk to most of the days. Takes them out of the house often (eg, to mother and toddler groups) to see other people. Discusses how she has become much more confident with her second child compared to how she was for her first one.

Cultural influences

Not relevant.

Need to know

Does not seem to be very high. Seems quite happy to follow her own instincts.

Perception of one's own abilities

Not interested by scientific information. Prefers to hear of issues through their impact on people's lives.

Issues of concern (outside MMR)

Was concerned by her son's lack of appetite but saw a number of doctors who reassured her and advised her not to worry as things would go back to normal as he gets older. No other issue of concern.

Decision concerning the MMR

Has given the combined MMR vaccine to her son (her daughter is too young yet).

Was MMR an issue?

Yes. At first, did not want to give it to her son.

Social pressures within MMR context

Did not want to tell anyone about her decision to give the MMR to her son because she did not want to be swayed by other people's opinion.

Sources of information used within MMR context

Mainly media.

Decision-making process within MMR context

Made up her own mind.

Type and nature of key arguments used for MMR decision

Some confusion in her conversation about the factors that influenced her, at first, not to want to give the MMR vaccine. Says that she did not want to give the MMR vaccine to her son because she was not keen on giving him 'medicine' to him and also because of the pain associated with the injection, and that she was not influenced by the media coverage of the MMR issue. However, a few paragraphs later, she mentions that she saw 'things' on TV to do with autism and says that it is for this that one would not want to give the vaccine but then adds that it is all 'rubbish.'

She changed her mind about the MMR vaccine and decided to go ahead because her sister and a friend were pregnant and she did not want her son to pass on anything to them (later on, says that it is measles which is dangerous for pregnant woman but it is in fact rubella). Got reassured by the fact that she knows many children who have been vaccinated with the MMR and that they are all fine.

Also says that she thinks children must be protected against those diseases.

Unclear about the exact timing of the decision-making process but she mentions that she thought of giving her son the separate injections because of her fears about autism. However, later opted for the combined version because of availability problems and the fact that she thought they were not as 'strong.'

Views on the MMR debate

Does not remember much about the anti- and pro-MMR arguments used at the time except for the link to autism.

Views on the media

Thinks that the media scare people, that they are scaremongering. Says it is the main reason why some mothers have decided not to give their children the MMR vaccine.

Views on vaccination in general

Not discussed.

Views on autism

Not really discussed.

Views on the medical profession

Has not had to go and see doctors for her children but would be her first port of call. Thinks that doctors know best thanks to their medical background.

Views on alternative medicine

Has used alternative medicine for herself but not really convinced by it. Prefers to take whatever the conventional doctors give her.

Views on authorities

Not very keen on being told what to do (eg, comment about health visitors). However, trusts her doctors.

Views on science

At some point states that she does not understand much about science but does not discuss whether she values it or not.

Behaviour concerning other health problems

As a rule, does not really pay attention to what other people are saying. Prefers to make her own mind about issues of concern, alone or with her partner. Discusses how she used to pay attention to what the health visitor said when her first child was born but that she has not done the same for her second child because she thinks that what health visitors make mothers panic unduly.

Sources of information in other contexts

Reads things in the newspapers or listens to the news but does not really follow what they say. Does not really respect the advice she receives from her parents and especially, from her partner's parents.

Decision-making process in general

Likes to make her own mind.

Other thoughts

Contradicts herself on a number of occasions (eg, influence of media, paying attention to other people's opinion).