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I am a social and health psychologist with research interests in risk perception, especially optimistic bias (see below). One aspect of my interests concerns the influence of risk perceptions upon subsequent precaution taking. As part of this, I have been collecting data from groups of students concerning the perceptions of various aspects of the risk posed by avian influenza.

I have currently collected five waves of responses, using a simple, one page questionnaire. (As a control, the other side of the questionnaire comprises the same questions but about SARS.) The waves of data collection in the UK started in April 2004 and the most recent was in November 2005. In November 2005 I also collected data from a group of students at the University of Pittsburgh, USA. The Pittsburgh data are not included in Tables 1 or 2.

Across all waves, the sample age ranged from 17 to 52 (Mean = 19.5 years) and was predominantly female (79%). All were undergraduate students, primarily of psychology.

My principal research interests in these data are in (a) how the risk perceptions change with time, and (b) whether, and to what extent, the respondents show "optimistic bias" (which is the tendency to see the risk to the self as being lower than the risk to others). (I am also interested in assessing (c) what variables best predict risk and optimistic bias both in each wave of data and, where I have repeated measurements from the same participants across different waves, between waves.) However, I present only the data relevant to issues (a) and (b) here.

Table 1. Mean risk perceptions across waves (UK samples only).

	Wave 3 April/May 2004	Wave 4 October 2004	Wave 5 April/May 2005	Wave 6 September 2005	Wave 7 November 2005
Maximum *N*	196	233	248	397	160
Other risk if vaccinated	2.27	1.99	2.44	2.23	2.94
Self risk if vaccinated	2.25	2.05	2.44	2.23	2.91
Other risk if NOT vaccinated	3.42	3.00	3.60	3.44	4.06
Self risk if NOT vaccinated	3.21	2.44	3.46	3.30	4.06

Response scale: 0 = impossible, 10 = extremely likely
Questions are in the appendix.

We can see that, over the first four waves, mean risk perceptions remained relatively stable, but increased between September and November 2005. Risk perceptions are higher for both self and the other for the question concerning risk if the person is not vaccinated, suggesting respondents show some belief that the existing flu vaccine may offer some protection against avian flu. (Consistent with practice in OB research, the precise target of comparison was, in this case, “the average University of Sheffield student of your age and sex”.)

Perceptions for risk if vaccinated never indicate the presence of optimistic bias (the means for self and other are more or less identical). Perceptions for risk if not vaccinated are slightly lower for self risk over the first four waves, but are identical in November 2005, suggesting that these very limited signs of bias evaporated as the perceived risks increased.

These data suggest, therefore, that these participants are not convincing themselves that their risk is less than average. This may, potentially, be a positive sign for subsequent precaution taking in that there is some concern that optimistic bias may be associated with less precaution taking (though little evidence is currently available on this question).

Table 2. Other variables across waves (UK samples only).

	Wave 3 April/May 2004	Wave 4 October 2004	Wave 5 April/May 2005	Wave 6 September 2005	Wave 7 November 2005
1. Heard about	.56	.56	.79	.81	1.00
2. Know personally	.01	.00	.00	.01	.01
3. Common	2.69	2.87	1.99	2.78	2.91
4. Severe	6.58	7.13	7.60	7.53	8.26
5. Control	4.97	4.25	4.50	4.49	4.40
6. Worry	1.53	1.48	1.75	1.65	2.86
7. Know about	1.21	1.05	2.05	1.95	3.46
8. Optimism	7.45	7.44	7.94	7.98	7.36
9. Think about	0.60	0.41	0.79	0.81	2.45
10. Imagine having	1.53	1.01	1.91	1.47	2.05

Questions and response scales are listed at the end.

The proportion having heard about avian influenza increases from just over 50% at the start to 100% by the latest wave, no doubt reflecting the increased coverage of this topic in the media. This sample is therefore clearly aware of the existence of the issue. Only a tiny minority reports knowing any one personally who has contracted avian influenza, thus the sample passes this check on the adequacy of their responses.

Across all the remaining variables, the responses for the first four waves of data collection are relatively stable, but there are some increases between September and November 2005, notably in ratings of how severe are the consequences of contracting avian influenza, worry that they might contract it, self perceptions of knowledge about it, frequency of reporting having thought about avian influenza, and ease of imagining themselves getting avian influenza.

Notably, however, ratings of control over contracting avian influenza (mean ratings suggest moderate perceptions of control) and optimism about contracting it (mean ratings suggest participants are moderately optimistic that they will avoid getting it) remain relatively stable across all waves.

In sum, there is little evidence of inappropriately low levels of awareness or of concern in the sample overall, nor of undue alarm or concern in their ratings as the flu season approached. Most appeared to remain optimistic that they would avoid it, but (as the data in Table 1 show) did not appear to be optimistically biased in the sense of seeing their own risk as being significantly below that of the average University of Sheffield student of their age and sex. The relative stability of ratings of perceived control over avian influenza is interesting as, potentially, one might have expected to see control perceptions rise as a means of coping with the increased threat. That they have not done so suggests that, at least for now, the participants are not responding to the threat by exaggerating their control perceptions.

Of course what happens to the above ratings should the threat become more imminent (e.g., with the arrival of avian flu in the UK or evidence of human to human transmission) remains to be seen. However, in this student population at least, there is little evidence currently of either undue ignorance or alarm.

For more on optimistic bias, see:

Weinstein, N. D., & Klein, W. M. (1996). Unrealistic optimism: Present and future. *Journal of Social and Clinical Psychology, 15,* 1-8.

For more on controllability and optimistic bias, see:
Harris, P. (1996). Sufficient grounds for optimism? The relationship between perceived controllability and optimistic bias. *Journal of Social and Clinical Psychology, 15,* 9-52.

Appendix: response scales and approximate wordings of questions

Table 1
If vaccinated against the flu using the existing flu vaccine:

How likely are you/is the average University of Sheffield student of your age and sex to contract “bird” flu? 0 = impossible, 10 = extremely likely

If not vaccinated against the flu using the existing flu vaccine:
Same question and scale

Table 2
Question 1: have you seen or heard any information about this outbreak of “bird” flu (apart from on this questionnaire)? 0 = no, 1= yes, (2 = unsure coded as missing);
Question 2: Do you know anyone personally who has/had bird flu? 0 = no, 1= yes, (2 = unsure coded as missing);
Question 3: How common is bird flu? 0 = extremely rare, 10 = extremely common;
Question 4: How severe are the consequences of contracting… ? 0 = not at all severe, 10 = extremely severe;
Question 5: How much control do you have over contracting…? 0 = no control, 10 = a great deal of control;
Question 6: How worried are you that you might contract …?, 0 = not at all worried, 10 = extremely worried;
Question7: How much do you know about …? 0 = nothing , 10 = a great deal;
Question 8: How optimistic are you that you will not get .? 0 = extremely pessimistic, 10 = extremely optimistic;
Question 9: I think about …, 0 = never, 10 = extremely often.
Question10: How easily can you picture yourself with…? 0 = not at all easily, 10 = extremely easily.