***TALKING SCIENCE IN CUMBRIA*:**
WELLCOME ' PEOPLE' AWARD TO
DR TOM SHAKESPEARE & DR ANN LACKIE (ANN LINGARD)
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Tom devised an evaluation quastionnaire to be handed out at the end of talks 9to adult groups, not to schools). Below is a summary of the answers to one of the questions: the results bring up some interesting conclusions .

The question:
How did you feel about genetics and biotechnology research?

	Before attending the talk	After attending the talk
Very negative	☐	☐
Somewhat negative	☐	☐
Mixed feelings	☐	☐
Somewhat positive	☐	☐
Very positive	☐	☐
No opinion either way	☐	☐

Please tick one box in each column

Number of answers = 406

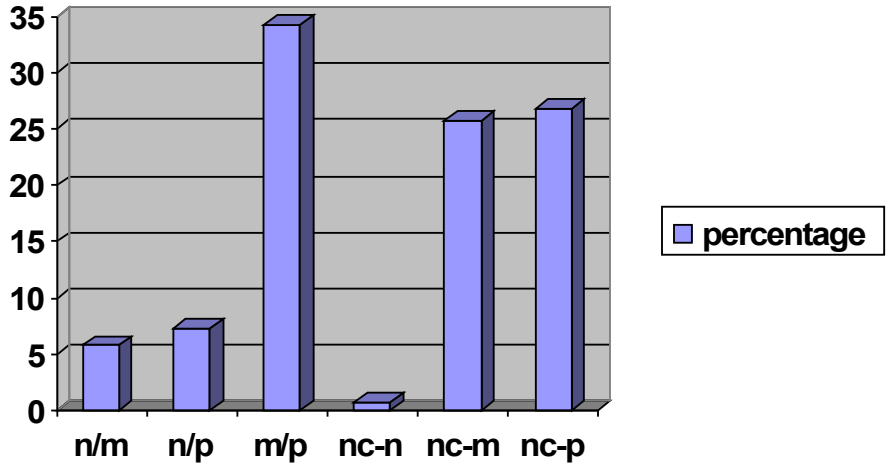
The change in attitude, before and after the talk:

Lumping 'very' and 'somewhat' together, in the negative and positive categories:

negative → mixed 5.8%
negative → positive 7.3%
mixed → positive 34.3% **ie total shift to more positive = 47%**

no change (negative) 0.7%
no change (mixed) 25.7%
no change (positive) 26.8% **ie. total 'unchanged' = 53%**

(but note that there are changes from 'somewhat' to 'very' positive, and 'very' to 'somewhat' negative within these groupings)



a) The attitude of half the respondents towards genetic research did not change during the presentation – approximately 25% of respondents remained with mixed feelings, and approximately 25% remained 'positive'.

But the other 50% of the respondents showed a marked shift:

- those that started with a negative attitude shifted towards 'mixed feelings' or the more positive end.
- Those who started with mixed feelings or 'somewhat positive' also shifted to more positive.

b) Other analyses of attitude not detailed here show th:

- the biggest shift towards a positive attitude occurred in the group that had no science education above O level or equivalent ('no science');
- those with 'no science' but a degree in a non-scientific subject started with a slightly more positive attitude.
- Respondents with a science degree were generally positive towards genetic research at the start, and remained so (and it was notable that the respondents who were 'very positive' before, and who remained that way, also tended to be those with a science degree).

Conclusions and Lessons Learnt.

1. That people of all ages and backgrounds, and with no access to further education, have a great desire to understand the basic biomedical science that is hyped in the media – both from an intellectual point of view, and so that they may draw their own informed conclusions about the moral and ethical dilemmas posed. In some cases, the demand appears to be insatiable (and, with the ending of this funding, will remain unfulfilled).

2. 'A little learning is NOT a dangerous thing.' Science that is not understood is science mistrusted *("I'm glad to hear no 'babies' are being flushed down the drain")* and it was striking how much more comfortable and positive people felt about the topics after the basic science, and the pros and cons (both technical and ethical) had been discussed.

This may have important general application in relation to explaining the challenges of rapid biomedical, agricultural and technological advances.

3. It is possible to tailor talks on only a few themes to fit most requirements; picture-led talks work very well, especially if the images are often humorous or have a different slant on illustrating a point (eg. Andy Warhol's images of 'Marilyn' in the talk about cloning)

4. Attendance was high in groups that met regularly (same place, same time, same faces) - despite the talks often being flagged as about 'science',

But where talks were arranged by eg a Museum, whose marketing was general (flyers, posters) and not targeted, and there was no natural regular audience, attendance was low (or zero!). In these circumstances, only Big Names will pull in the people (middle-class, educated, retired), and for the wrong reasons.

5. Most important, by targeting rural community groups, '*Talking Science'* reached an audience much wider than the usual 60+ age-group from social groups A and B.

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Some of the written comments:

'Dr Lackie raised some of the moral & practical issues which surround genetics in a balanced and straightforward way. She contributed extremely well towards meeting the need for meaningful debate and action.'
'This was a very interesting talk – delivered with style and charm. I learned a lot';
'Quite excellent to have so much information and discussion as possible on these matters. We'll never make progress without research and experimentation';
'Made me think and cleared up many of my preconceived ideas/knowledge!';
'An excellent speaker, very knowledgeable, a good mixture of science leavened by an occasional light-hearted slide';
'|Dismissed too readily the eugenic point of view; should have been explained instead of just linking with the Nazis' (this was from a man who thought I was a governmentt spokesperson!*);*
'Very well-prepared and presented, as good a presentation as I have heard for a very complex and difficult-to-understand subject';
'Fascinating, the time passed far too quickly'
'A most interesting talk; not patronising, stimulating and with a nice humorous touch. I learned a great deal!' ;
'This was very informative, not at all what most people would think was the content of a WI meeting – proves that we are not all Jam and Jerusalem'