This morning I would like to speak to you about why diversity matters - why it is a good idea to have a rich mixture of opinion, thought and belief. I would then like to link those thoughts to one of the great challenges of our time - that of combating extremism.

But let us start with a scientist one hundred years ago. In 1906, Francis Galton went to a country fair – it was the annual West of England Fat Stock and Poultry Exhibition – an opportunity for farmers and locals to compare the quality of each others' cattle, sheep, pigs and chickens. The fair was the perfect opportunity for Galton to pursue his interest in heredity, as a livestock show is essentially a huge experiment in good and bad breeding. Galton believed that the worth of people, like animals, relied upon their breeding. In fact, he thought that that very few people had sufficiently good breeding to succeed. His experiments into the abilities of humans had begun in 1884, and had left him with little faith in the intelligence of the average person. He thought that: "the stupidity and wrong-headedness of many men and women is so great as to be scarcely credible."

At the fair, Galton found a stall where there was a competition – to guess the weight of a fat ox. 800 people had entered the competition – their knowledge of oxen ranged from expert to beginner. Galton, so opposed to the idea of democracy, immediately thought that this competition would throw light upon the ability of ordinary people to come to the right judgement.

He wrote: "The average competitor was probably as well fitted for making a just estimate of the weight of the ox, as an average voter is of judging the merits of most political issues on which he votes." After the end of the competition, he did a statistical analysis of the voting, including calculating the mean of the guesses. From this he could determine what the guess of the crowd would have been, if it had been a single person with a single vote. Given the fact that the crowd was very diverse –with some very intelligent and some very stupid people, some experts and some without knowledge – Galton expected the crowd to get it very wrong. In fact, the opposite was the case. The ox weighed 1,198 pounds and the crowd guessed 1,197 pounds. The crowd, as a whole, had been almost perfect.

And that is not an isolated example. If you ask a hundred people to run 100 metres and then average their times, the average will not be better than the time of the fastest runners – it will be worse. But ask a hundred people to answer a question or solve a problem and the average answer will often be at least as good as the answer of the smartest member. With most things, the average is mediocrity; with decision-making, the average is excellence. This capacity for groups to get it right is called the 'Wisdom of Crowds'.

But this doesn't work for just any group. There are rules, and they are surprising.

- 1. Each member of the group must make the decision for themselves.
- 2. Each member of the group must draw upon their own different knowledge to make the decision.

- 3. Each member of the group must be able to contribute their decision to the whole and each is given equal value.
- 4. The individuals that make up the group must be diverse different in intelligence, knowledge, opinion, culture and background.

If any of those rules are altered, the group becomes more stupid. So a lot of what we *thought* we knew is simply wrong. As a society, we often want to have harmony and agreement in decision making, but groups decide better if they disagree. We often value expert knowledge, but groups decide better if there is a wide range of different opinions and knowledge.

We often want to take a single leader and follow him or her, but groups do better if everyone's contribution is valued equally. We often want to be with the same kind of people and we can fear diversity, but a group containing a mix of different types is more effective than a group made up of similar people.

I find a great deal to enjoy in these startling conclusions. If we learn the lessons of this research, to create a successful group we will need to do a number of things.

- 1. We need diversity everyone should be an individual; we need to celebrate our differences.
- 2. We need to value independence of mind everyone should be encouraged to reach their own conclusions.
- 3. All opinions are to be valued not in spite of, *but especially*, if they disagree with our own.
- 4. We need to hear every voice no one voice should drown out another's.

Of course, a group must be able to stay together in order to work. If a group is too diverse, and is in total disagreement, it cannot function effectively as a group. Since this is a school, and we should apply effective research to improve ourselves, the research that Galton began in 1906 should be directly relevant to what we do here. And since this is a highly effective school, I wonder if we haven't already been applying this knowledge, perhaps without consciously knowing it.

I think we have. We assert a common identity, but within that try to create as much diversity as possible.

Pupils at Merchant Taylors' all wear the same uniform, we all come to the same place to learn, we all sign up to a common set of values. *But,* within that similarity, we encourage as much difference as possible. This school has a culture of supporting difference. We all know that, but it's good to hear it from others too. When ISI inspectors visited us the other year, they wrote: "Students' behaviour in lessons and around the school is excellent. Students support each other and respect the right to be different." The good work that we do at Merchant Taylors' in nurturing diversity is evident throughout the life of our school.

And we want to be part of a diverse society too. Where difference is seen as a threat, where opinion cannot be expressed, where thinking becomes too rigid, then we are a weaker society for it. This is nowhere more evident than in the threat we face as a society from terrorism and extremism.

Who are these potential terrorists or violent extremists? They can come from any background, any community, or any religion or belief. They can be young or old, male or female, rich or poor. They believe that violence or terrorism is an acceptable way of changing how others think or behave.

Why do people get involved in terrorism or violent extremism?

There are many reasons why this may happen. Here are just some:

- a lack of identity or belonging
- insecurity
- defending their culture, way of life or beliefs
- they may be pressured, or bullied into it
- they may have been radicalised by violent extremist groups
- they may want retaliation

Those who encourage or get others to commit acts of violent extremism often target vulnerable people who are led into believing that violence or criminality can earn respect, riches or even glory.

However, even though a person may feel angry about something they believe is unfair this does not mean they should attack or threaten any person or any community. What can you do? It is incredibly dangerous getting mixed up in violent extremist activity. If you think you know someone who could be vulnerable, especially through contacts with dangerous groups using the internet, then there are things that you can do. If they will listen to you, then talk to them, try to persuade them that they should step back from what they're doing. Encourage them to talk to someone such as:

- their parents, teacher or other responsible adult
- a professional at ChildLine who can offer help and advice in confidence

If you don't think they'll listen to you, talk to someone yourself - such as a teacher here at school, your own parents or another family member.

The findings of Joseph Galton in 1906 came as a complete surprise to him; he was distrustful of the judgement of crowds and groups.

In fact he could not have been more wrong – crowds and groups get decisions right. But they only do so if the group remains diverse and different. They only do so if the group values

independence of mind. They only do so if the group encourages ideas that disagree with our own. They only do so if the group hears every voice.

Those things that make a group successful rule out extremism and extremist thinking – however, they *do* describe a functional and supportive society – one that is very like our own.

But they are an *even closer* fit to a successful group a little closer to home - I'm talking about us. I'm talking about Merchant Taylors' School.