UNIVERSITY OF CAMBRIDGE

Writing for the public

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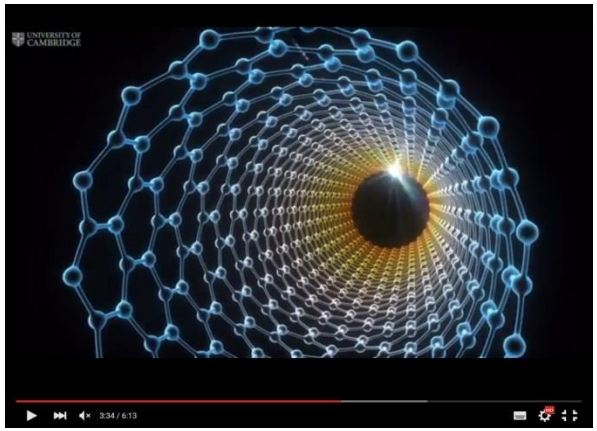
Unhappy families: Nine out ten adults estranged from family find Christmas difficult

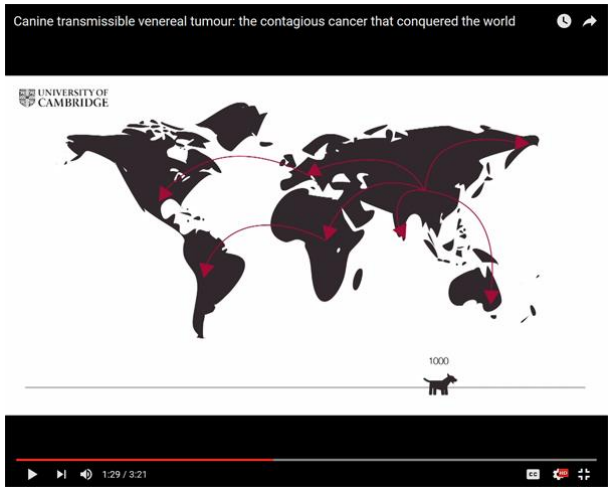
A new report looking at the experiences of people who are estranged from family members and the challenges they face has highlighted the particular difficulties associated with Christmas.

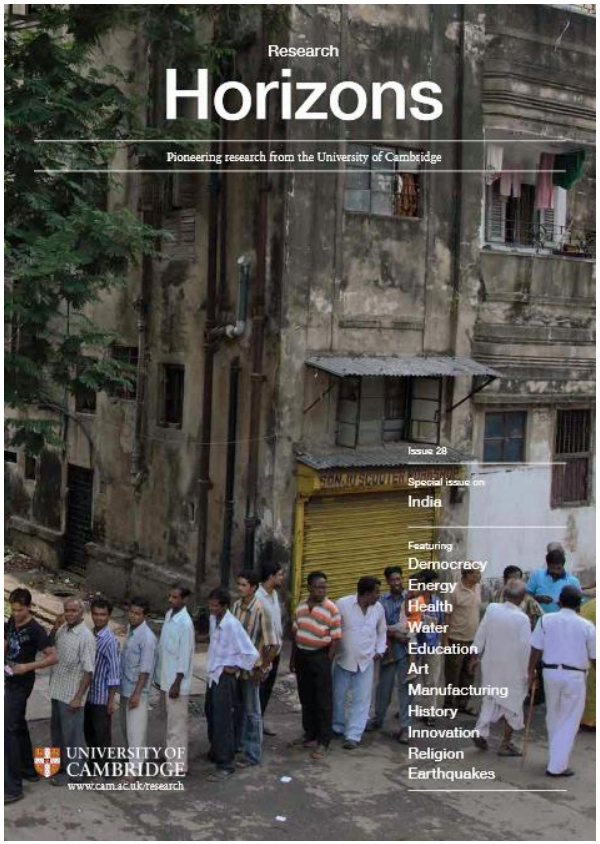
Hidden Voices – Family Estrangement in Adulthood, a collaboration between the charity Stand Alone and the Centre for Family Research at the University of Cambridge, is the first in depth piece of UK research on family estrangement. It examines the experiences of over 800 people who self-identify as being estranged from their whole family or a key family member, such as their mother, father, siblings or children.

> *"Social media plays a part because it's a highlight reel of people's family lives, with Facebook feeds filled with pictures of families celebrating together"*
>
> — Lucy Blake

Becca Bland, Chief Executive of Stand Alone, says:
"Family is a huge part of our individual and collective lives and an unconditionally loving, supportive group of relations is idealised in society. Yet this is not always attainable for those who are estranged from their family or a family member. I'm sure this research will be challenging to read, but I'm hopeful that as a society we have the







General tips

- Who are writing for? Is your style appropriate?
- What do you want your reader to take away?
- Avoid clichés like the plague – and **please no** Holy Grails or paradigm shifts
- Avoid jargon and abbreviations
- Be careful with statistics
- Read around – see how others write
- Don’t meander or waffle

Avoid abbreviations

- The use of ARTs such as abacavir can prevent the STI HIV from developing into AIDS.
- *The use of antiretroviral therapies such as abacavir can prevent the sexually-transmitted infection HIV from developing into AIDS.*

Quotes

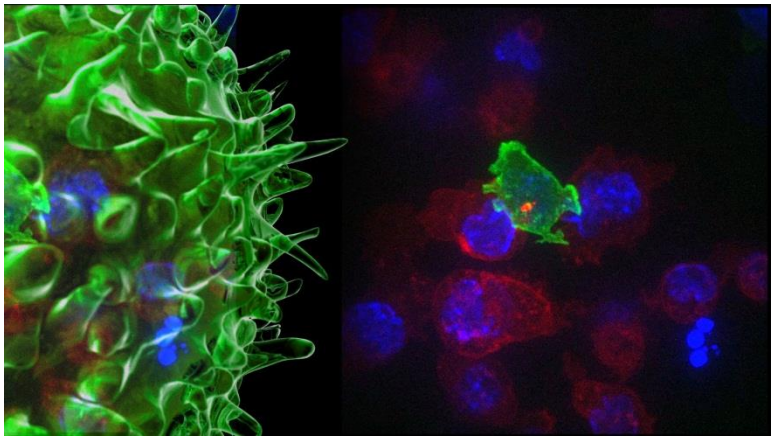
- “One route by which Ebola is thought to be transmitted to humans is through the consumption of bush meats such as the fruit bat. Thus it is imperative that the public be informed of the risks associated with such activities.”
- *“We believe that one way people can catch Ebola is by eating bush meats such as the fruit bat. It’s essential that we inform the public of the risks that this poses.”*

Don’t use jargon

- Cardiologists have identified a new allele associated with increased risk of myocardial infarction in BME populations.
- *Scientists have discovered a new gene linked to increased risk of heart attack among people from Black and minority ethnic backgrounds.*

What makes a story?

- Brand new
- Topical
- Biggest, fastest, most expensive…
- Relevance to people's lives
- Controversial
- Strong images
- Quirky



…Does it pass the 'So What?' test?

News

- What's the story?
  - What did you do?
  - What did you find?
  - Why is this significant?
  - Why are we telling this story now?
  - Why would a friend down the pub be interested?

News

- Who, what, when, why, where and how?

  A chemical found in our breath could provide a flag to warn of dangerously-low blood sugar levels in patients with type 1 diabetes, according to new research from the University of Cambridge. The finding, published in the journal Diabetes Care, could explain why some dogs can be trained to spot the warning signs in patients.

- Avoid hyperbole – is it ***really*** pioneering, groundbreaking or a breakthrough?

http://www.cam.ac.uk/research/news/zika-warnings-lead-to-significant-increase-in-demand-for-abortions-in-latin-america

Features

- Longer word count – but don’t meander or waffle
- Be creative – try different styles, vary the length of sentences
- Memorable opening and ending
- Use ‘colour’ to bring your story to life
  - Human angle
  - Description of equipment or environment
- Use humour only if it’s appropriate
- Introduce different aspects or voices, but don’t cram in too much
- Interview people – do it in person

Counting on sheep

Sheep are smarter than we might think, with brains surprisingly similar to ours. These similarities are helping researchers to study a devastating and incurable infant brain disease.

"Shall we take one of the sheep for a walk?" asks Professor Jenny Morton before we head down to the farmyard.

This seems a strange question at first: we're all familiar with sheep behaving with a flock mentality, unable to think for themselves. So much so, in fact, that 'follow like a sheep' is a commonly used, derogatory phrase in the English language.

Yet, on meeting the sheep, it is immediately clear that these are not just dumb animals. The individual characters portrayed in the animated film Shaun the Sheep might be closer to the truth. "These animals are really smart," explains Morton, who leads a team in the Department of Physiology, Development and Neuroscience. "They all have their own personalities."

Morton's colleague Dr Nicholas Perantos lets Isabella, one of his sheep, out of her pen. She is excited to be out, but doesn't bound off; rather, she follows Perantos closely at heel, like a Labrador following its master. Once outside, she runs up and down the farmyard, stopping "to say hello" to other sheep before returning expectantly to her handler. "She's definitely Nic's sheep," says Morton. "She knows who I am, but I'm not wearing my usual farm clothes today, so she's a little wary of me."

Morton and colleagues are studying the cognitive skills and behaviour of these sheep, using experiments adapted from those carried out with humans. A standard task they use is to give the sheep two options and measure their behaviour: choose option A and they receive pellets, choose B and they receive nothing.

Using electroencephalography (EEG), the researchers can measure patterns of electrical activity across the brain to see what is happening when the sheep make decisions. Recently, they have begun making measurements from deep inside the brain. "We can now record from individual neurons as they fire," says Perantos. "This might be in response to a particular task or a decision they're making, or it might be cells that 'fire' depending on where they are standing or which way they are turning." The discovery of these location-specific cells in mice – so-called 'place cells' – last year won Professor John O'Keefe from University College London a Nobel Prize.

Once the animal knows the task, the researchers will reverse the choices: now option B gives the pellets, but nudging the lever for option A offers no reward. Rats, monkeys, sheep and humans all learn to switch; but, compared with rodents, sheep react very differently, explains Morton. "When they don't get their reward they'll turn around and walk up to Nic, baa-ing, as though they're saying 'The apparatus isn't working, go and sort it out'."

The sheep's intelligence is one reason why Morton believes they are a useful animal to help us understand how the brain works. There are some practical reasons – their docile nature makes them easy to manage and their large body size means they can easily carry equipment such as GPS trackers in a harness on their backs, allowing researchers to measure their natural behaviour – but it is the size and structure of their brains that is key.

Sheep's brains are much larger than those of rodents, similar in size to the brain of a rhesus macaque, and with the complex folds that are seen in primate brains. Crucially, their brains also have

"We can now record from individual neurons as they fire"

basal ganglia similar to ours – this is the area deep in the brain that, along with the cerebral cortex, is responsible for important functions such as the control of movement and 'executive functions' such as decision-making, learning and habit formation. It's this latter facet that makes sheep a useful model for studying brain diseases such as Huntington's disease and Batten disease that affect the basal ganglia and cerebral cortex.

You may never have heard of Batten disease. It's extremely rare, and only a handful of infants or children are diagnosed each year in the UK. It is a genetic disease caused when a child carries two copies of an aberrant gene – one copy from each parent. But it is also extremely serious – symptoms include progressive blindness, severe seizures and the loss of language, swallowing and motor skills. Death at a young age is inevitable and there is no cure.

Although Batten disease affects humans, it has never been seen in other primates. It does, however, occur naturally in sheep, though it's unclear how common it is, as most farmed sheep are killed as lambs for human consumption. The disease was identified in sheep in New Zealand, and it is from these sheep that Morton's animals were bred. Some of her sheep are imported, others are studied in New Zealand.

Batten disease is very similar in sheep and humans. At first, it is difficult to spot a Batten sheep, but after about a year, they begin to lose their eyesight and show unusual behaviour. After 18 months to two years, they show signs of dementia, often standing motionless in space, and can become agitated if handled by someone other than their usual handler.

Recording brain activity, particularly in areas such as the hippocampus, which is crucial for memory and learning, will give Morton and her team insights into what goes wrong in the disease in sheep. This is one step along the long path towards treating – even curing – the disease in humans.

With collaborators in Australia, Morton is also studying Huntington's disease, a more common but equally devastating disease. Unlike those with Batten disease, people – and sheep – with Huntington's do not begin showing symptoms until adulthood. "We have good mouse models for studying Huntington's disease, but mice are short-lived animals, whereas sheep can live to at least 12 years. This is another huge benefit of studying the disease in sheep."

There is no question that research using animals remains controversial. There are some who believe that animal research can never be justified. Morton has herself encountered extreme examples of such people in the past and has faced death threats because of her work. But she knows that her work is extremely important for the families of children with Batten disease.

"There's only one thing worse than being a parent with a child who is blind, losing their motor skills and developing dementia," she says, "and that's being a parent with a child who is blind, losing their motor skills and developing dementia, and thinking that no one is asking why. That's why we have a duty to do our research."

1 Professor Jenny Morton
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Dr Nicholas Perantos
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Opinion and Comment pieces

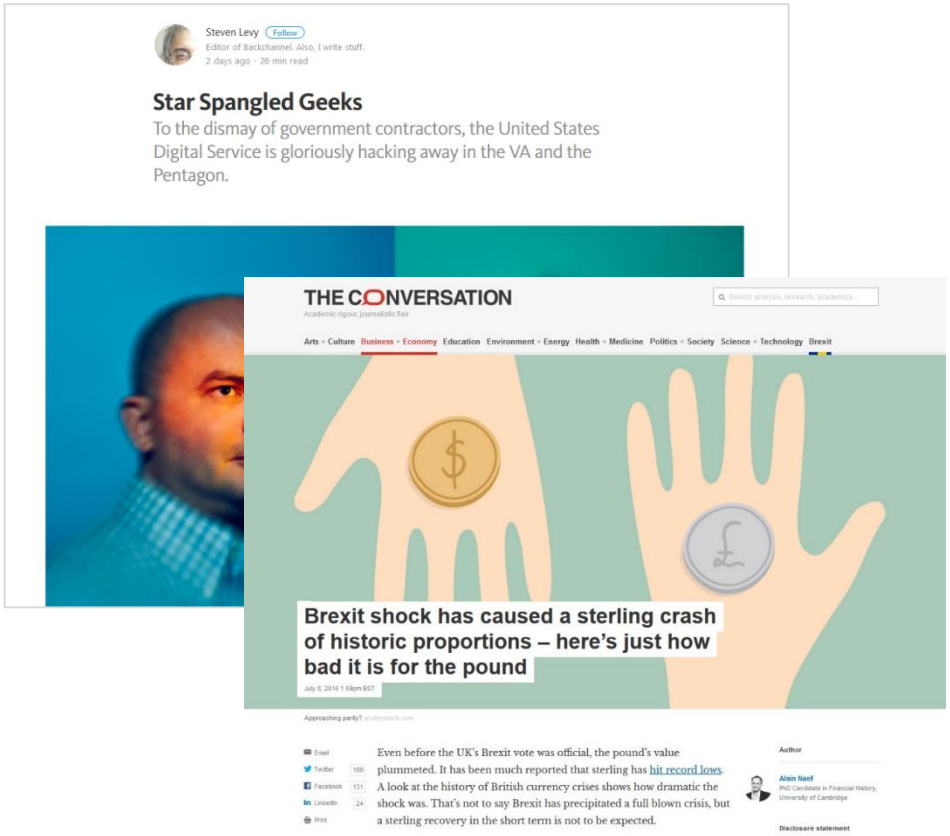
- Have an opinion
- Will the reader disagree with you?
- Be topical and timely
- Are you saying something new?
- Keep to one or two points: reinforce and reinforce
- 600-800 words

Blogging

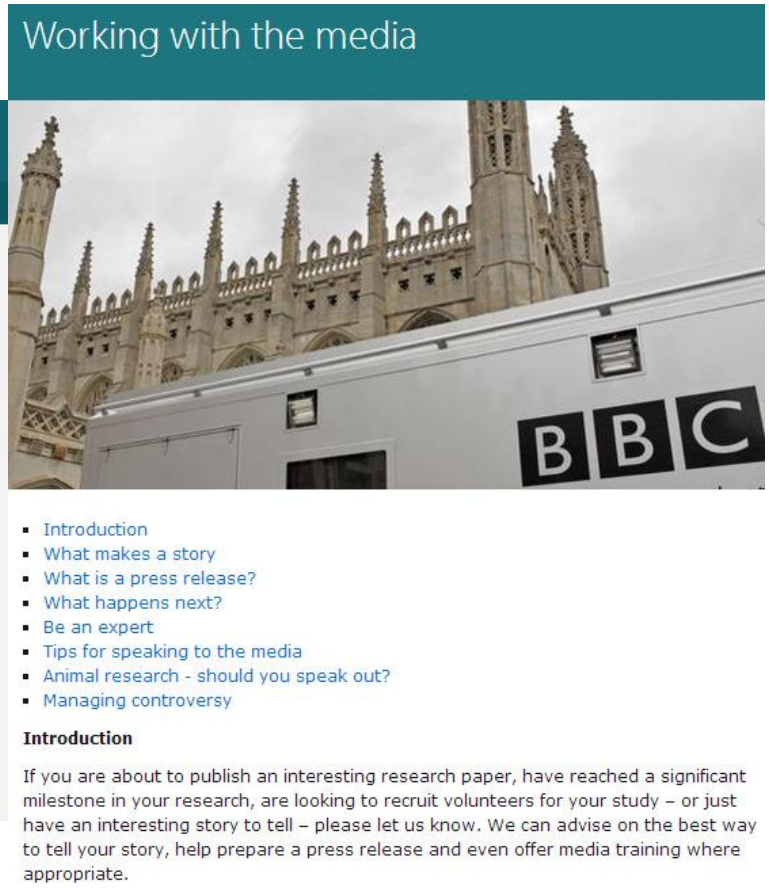
- Can be more personal/conversational
- More likely to see “I”
- Include hyperlinks to other content (especially your own)
- Remember your audience – if you’re not thinking about them, then just keep a diary
- Unlimited word count – but doesn’t mean it has to be

Writing opportunities

- The Conversation
- Helping with press releases
- Cardiovascular SRI or departmental websites
- Own blog – but how will you reach your audience?



Communication resources



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