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Woman who cannot tell voices apart

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Science Correspondent

A 62-YEAR-OLD woman is providing insights into how the human brain works after becoming the first person to be diagnosed with a condition that leaves her unable to recognise voices.

The British businesswoman, who is normal in every other way, is the first known case of someone being born with developmental phonagnosia.

Her condition is so profound that she often avoids using the telephone and struggles to recognise the voice of her daughter.

Neuroscientists have performed tests and brain scans while asking her to listen to a range of recorded voices. They found that while she was able to understand what was being said, she was unable to identify a speaker as someone she had been listening to a few minutes earlier.

Researchers found that her condition goes beyond a simple inability to remember voices because she even has difficulty telling between two voices played back to back.

Brain scans taken as she listened to voices showed her brain reacted differently from most people's, suggesting it is unable to process information about a speaker's identity. Researchers are also testing a man who they believe suffers from the condition, but have yet to confirm his diagnosis.

Prof Pascal Belin, a cognitive neuroscientist at Glasgow University, said: "Identifying voices is surprisingly important for people, especially on the telephone. We can usually tell who someone is on the

telephone, even if the line is bad, from just a word. But people with phonagnosia are not able to do this.

"Recognising a voice relies upon the acoustic differences between voices such as the melody or pitch of a voice and the tone, which is directly related to the size of the vocal chord and tells us about whether the speaker is big or small. There are a range of other features such as hoarse-

ONLINE

Scientists hope to find more people who have trouble identifying voices - and are also seeking those who are unusually good at it. They have devised an online voice recognition test that can be tried on

vnl.psy.gla.ac.uk/voice-memory/



ness, roughness, breathiness of the voice, which have to do with the airflow over the vocal chords, and these all combine to make our voices distinctive."

Prof Belin has been working with Dr Brad Duchaine, from University College London's Institute of Cognitive Neuroscience, who was the first to recognise that the woman, identified only as KH, suffered from phonagnosia.

She came forward after reading about work that Dr

Duchaine had been doing on prosopagnosia, a condition where people are unable to recognise faces. The woman, a management consultant, agreed to take part in a series of tests and has now had brain scans in Glasgow.

She disclosed that she has struggled with recognising voices all her life. She avoids using the telephone and only answers calls that have been booked in advance so she knows who she is talking to.

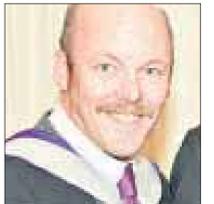
In one incident, KH was speaking to a group of colleagues at a meeting when someone came up behind her and began speaking. As she did not recognise the voice, she did not turn around to acknowledge the person.

She later realised, however, that the person was an important colleague and feared that her failure to acknowledge their presence could be interpreted as a snub.

The scientists say her case is helping to reveal information about the brain and how it processes information from our ears.

KH is able to discern the gender of a speaker. But in one test, she was unable to identify the distinctive voices of a series of well-known celebrities, including David Beckham and Lady Thatcher. She did identify Sir Sean Connery.

Scans revealed that a part of her brain known as the temporal voice area was far less active on the right hemisphere of her brain, while she had normal activity in the left. The finding suggests that in the human brain, the right side is more important in voice recognition, while the left is used to understand words.



Lord and Lady Hollinsclough ran into trouble after their yacht hit a low-lying iceberg in the South Atlantic

Peer's family saved by Navy ship after yacht hits iceberg

JASPER COPPING

AN ARISTOCRATIC British couple and their two daughters were rescued from their sinking yacht last night after a collision with an iceberg in the South Atlantic.

Lord and Lady Hollinsclough ran into trouble almost 300 miles from the island of South Georgia after they hit a low-lying iceberg, of a kind known as a "growler". Their vessel started to take on water and suffered engine failure.

The couple, from Chelmsford, Derbyshire, were sailing round the world on their 55ft oyster cutter sloop Hollinsclough in the company of their daughters, Caitland and Morgause Lomas, who are believed to be in their teens.

The family alerted Falmouth coastguard on Friday, which helped the Falklands authorities to locate the vessel. HMS Clyde, which was 200 miles south of the stricken vessel, was directed to pick them up and reached them last night.

By then, the yacht was low in the water and was left to sink. The

family now face a 1,000-mile journey on the Falklands protection vessel to the islands, which they are expected to reach this week.

A coastguard spokesman said: "All four are safe and well now and on their way to the Falklands. They are OK, but I would imagine they are a bit shaken."

The coastguard likened the submerged iceberg to the one that sank the Titanic. He added: "What they've hit is a 'growler', where hardly anything is out of the water and the majority is submerged."

"It is very similar to what the Titanic hit. You can track them by radar or visual lookout, but you can't see them all."

The coastguard was alerted to the family's predicament after their emergency radio beacon was activated.

In a brief entry in their online diary, timed at 12.58pm on Saturday, the family recorded: "300 Miles NE South Georgia, Ice convergence zone. 51.27.19 S 29.10.92W. EPIRB [Emergency Position Indicating Radio Beacon]



The family's 55ft yacht was left to sink after they had been rescued

alerted. Falmouth control aware, Royal Navy in support."

Their position was pinpointed as 285 miles north-east of South Georgia and the Falmouth team contacted the Falklands, where the authorities co-ordinated the rescue.

Before their latest voyage, the family had spent some weeks on South Georgia. After a previous attempt to leave, they had to turn back when their autopilot failed.

As they made a second attempt to leave the island, nine days ago, they wrote: "We had repaired our autopilot the best we could, the boat was good... Twenty days or so ahead,

maybe an anchorage at Tristan de Cunha, the main target is Cape Town. Fingers crossed for good winds and few icebergs."

In the March edition of the *South Georgia Newsletter*, Caitland wrote about a football match the family enjoyed on the island.

She wrote: "My sister Morgause and I were looking forward to this. Football, 11 a side, mud bath mayhem on the southern side of the world."

She continued: "Southern Ocean pitch, a little gravel, grass as green as you could ask for, flat as you like. Mummy took referee duty, gave best wind on her brass trumpet and the players were away. Wind, snow, hail and rain for combat, that's 30 minutes each way then."

Hannah Turner, from the Church Inn pub in Chelmsford, said she thought Lord and Lady Hollinsclough's property in the village was a second home.

She said: "They don't really stay in the village that much so nobody really knows them. They don't come in to the pub."

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