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In the wake of the terror attacks on Brussels, Belgian police rapidly identified two of the suicide bombers that carried out the attacks: brothers [Khalid and Brahim el-Bakraoui](#), both Belgian nationals. The identification came after the police released CCTV images showing three men at the airport in Zaventem in the hope that people might recognise them and come forward with information.



The search for the [third man](#) wearing the white jacket and hat in the CCTV image has become the immediate focus for the massive police operation. He was thought to be carrying [the most powerful bomb](#) which [failed to go off](#), prompting him to flee. The unexploded bomb was later safely [deactivated](#) by experts.

It is clear the release of [images plays](#) a massive role in the manhunt – a taxi driver is said to have come forwards after [recognising CCTV images](#) of the three men he earlier dropped off at the airport. But looking at the grainy CCTV footage, it is hard to make out the blurred features of the suspects. So how easy is it to actually identify someone from a CCTV image?

You may not have heard of “[super recognisers](#)” – people who literally never forget a face. In the UK, the [London Metropolitan Police](#) has its own super recogniser squad who have been shown to have extraordinary powers of recall when it comes to identifying people from an image or photo.

Both in policing and at border control, unfamiliar face matching – rather than face memory – is key to successful operation. Super recognisers have been shown to [perform significantly better](#) than control groups in a number of tasks related to identification. So could this enhanced ability to spot a face in a crowd be used in the fight against terrorism?

Face off

A group of current Met Police super recognisers were assessed with the [Glasgow Face Matching Test](#) (GFMT), a standardised test of unfamiliar face-matching ability. In this task, participants are shown pairs of faces and are asked to determine whether they show the same person or two different people.

The GFMT sounds like a deceptively simple task, show a person two faces and ask whether they show the same individual or two different people. However, the key thing here is that they are unfamiliar faces – and [our research](#) has shown that [unfamiliar face recognition is hard](#) and highly prone to error.

In fact, error rates in this task for the average person range from [15-20%](#) – and we know from previous findings that even a group of passport officers perform no better, even those with years of experience in matching faces.

So how did the super recognisers do? Well, their performance on the GFMT unfamiliar face-matching task was [outstanding](#), where average error rates in the comparison group – of police trainees – reached 19%, average error rates for the super recognisers fell to just 4%, with one officer reaching perfect levels of performance.



In a [second experiment](#), the demands of the task were increased by replacing the GFMT faces with those of male models. Models often alter their appearance and in this way the authors could test super recogniser's unfamiliar face-matching performance for faces that varied in appearance to a greater degree. This type of task also mirrors an offender's change in appearance, using of different hair styles, beards, and clothing.

Once again, the super recognisers [outperformed](#) the control group – a group of university students – on the models task, with error rates falling from 27% among the control group to 10% in the super recognisers.

In a [third test](#) the super recognisers were presented with a familiar face-matching task using celebrity face images. The photos were all pixelated to mirror a forensic identification situation in which only low-quality CCTV images would be available. The super recognisers again scored significantly fewer errors (7%) compared to the control group (27%).

Facing the facts

These findings provide more evidence for the view that there are wide [individual differences](#) in face recognition ability across individuals in the population. And that people's level of ability appears to be innate – training or years of experience makes little difference to the level of performance.

Across these three experiments using both unfamiliar and familiar faces in both easy and difficult viewing conditions, the Met Police's super recognisers consistently outperformed the control groups.

The wider recruitment of this special breed of recognisers in other police forces and in agencies such as the passport office and border control – where accurate unfamiliar face matching is vital to the nation's security – is very important in the [fight against terrorism](#) and could go some way to bolstering national security efforts.

Much has been said about [Belgium's security failures](#) in the aftermath of the latest attacks on Brussels. But it isn't just the Belgians who are struggling to keep a track of the [jihadi networks](#) within their country. The latest talks have renewed calls for a [European wide intelligence agency](#) that could share information quickly and easily between countries. Because it is clear that for long as terrorists can cross borders, we need security that can do the same.