



# The Torch



Issue #7

## How blind people see without sight



19/01/2019 - Dan Satherley

Australian researchers have discovered a pathway in the brain that allows blind people to "detect and respond to visual stimuli they do not 'see'".

"If a person's primary visual cortex is damaged due to injury or a stroke, vision loss can occur because the brain can no longer receive input through this critical pathway," the University of Queensland team said on Friday.

"Nevertheless, some individuals with a damaged visual cortex experience a phenomenon called 'blindsight': they report an inability to see, yet are able to navigate and react to sudden movements or facial emotions correctly and above chance."

Dr Marta Garrido of the university's Queensland Brain Institute has been studying the phenomena for a decade. She hypothesised there could be a pathway between the eye straight to the amygdala, the part of the brain responsible for processing emotional information - bypassing the visual cortex altogether.

"This subcortical route had never been found in primates before when we started this project," said Dr Garrido.

But they'd found evidence for it in rodents, and now say they've found it in humans.

Her team looked at MRI scans belonging to 622 people with working vision, and found neural connections between the eye and the amygdala.

"Amazingly, we were able to reconstruct this pathway in every person."

They then looked at MRI data recorded during a facial recognition study, and discovered that people who are better at recognising fear in a person's face have more white matter brain connections in the exact pathway between the eye and the amygdala.

"This paper settles the debate, but it also opens other questions about why the brain evolved to have alternative pathways that go parallel to each other," said Dr Garrido.

"One possibility I think is redundancy: it is useful to have redundancy mechanisms in the brain, so if one thing fails, for example in the case of stroke, then we still have an ability to process things that are really, really important, like danger and navigation."

The research was published in journal eLife.

Newshub.

## Farewell Bongani

Written by Ian Hutton- SA Mobility For The Blind

Bongani Maleka is a big man with a warm heart. He loves music. When he was young, he was part of a choir which won competitions. Today, he listens to everything from Jazz to opera. After school, he went to a technical college where he studied things like industrial electronics and engineering science. Later he was Manager at a retail outlet. And then one day, he heard an interview on the radio which changed the direction of his life.



The person being interviewed was blind and he spoke about Orientation and Mobility Training. Bongani was moved by what he heard. He was moved to the extent that he applied for a place on the diploma course in Orientation and Mobility Practice and two years later qualified as an O&M Practitioner. Little did he know then where this road would take him

But Bongani's real adventures began in 2004 when he came to work for the SA Mobility for the Blind Trust (SAMBT). This is an outreach organisation which takes O&M Training to blind people in rural and township places across the country – to people who would otherwise have no access to this training at all. This meant that Bongani would live and work for months at a time away from home.

One of the areas he worked in a lot was northern KZN – there where Kudu still roam and the fish eagle calls. Picture this now:

Bongani is walking from his off road vehicle along a path to the homestead of a blind client. And suddenly, a black mamba rears itself up in front of him! It's just paces away and it is raised up taller than Bongani himself! Bongani stands frozen, eyes shut tight, and praying. Five minutes go by, then ten, then twenty! Bongani feels a thump on his shoulder! The snake is now in the tree above him! It was then that Bongani ran!

And there are many, many stories that Bongani could tell us – stories of people, places, events and of danger even. Sadly though and after being with SAMBT for 14 years, he has had to stop working as an O&M Practitioner. This is because of a string of serious medical conditions that have afflicted him. It is hoped that soon he will return to full fitness and carry on doing the work that he loves.

In his time with SAMBT, Bongani touched the lives of close on a thousand blind people and thousands more of their family members. One of his blind clients had this to say about the effect that his training had had on her life. She said, "I feel human again".

## Congratulations



**Michael Roberts** had a very good year. In 2018 being rewarded with:

- Best under 11 cricketer
- Best under 11 squash player,
- Award for being selected to play for KZN squash team,
- A merit award for coming 7<sup>th</sup> in his grade with an average of 81%
- Best mathematics learner in grade 5.

Well done Michael. We are very proud of you.



**Faustina Bernado** is attending King's Way Christian School and has received a number of achievements during the 2018 academic year.

These include:

- Excellence in Memorizing Scripture
- Reading Award
- Christian character: Forgiving
- Christian Service
- Honour Roll

Excellent work Faustina

### **Tennis Champion of the Year**

During the 2018 prize giving ceremony of Beaumont Primary in Somerset West, **Matteo Wessels** received the award for u/11 tennis champion of the year. Matteo, eldest son of St Dunstaner Don Wessels, played for most of the year.

For dad Don, the highlight of the year was however when Matteo won a gold medal at the Boland



Wilson tournament in Paarl. Matteo, participating in the u/11 gold plate of the B-division had to win a tie break in both the semi-final and final before being crowned with a gold medal.



What makes Matteo's achievements more remarkable according to Don, is that Matteo was born with a clubfoot. Had his badly misshapen foot been as it was, he would have faced a number of challenges.

Dr Dirk Hoffman, a well-known orthopaedic surgeon of Somerset West, however stepped in when Matteo was a mere 4 days old. At this tender age Dr Dirk administered a first in a series of plaster casts to Matteo's little foot. With each new set of fresh plaster, the doctor straightened his foot a little more.

With this phase of the procedure completed when Matteo was 4 months old, Dr Dirk's brother, UCT affiliated Prof. Terry Hoffman, operated on Matteo. In this operation Prof Terry cut through part of Matteo's Achilles tendon, a procedure that further released the tension in the baby foot and enabling it to straighten.

When Matteo was born with this challenge, the family prayed for God to make this his strength. The family believes that Matteo's tennis prowess a decade after the birth of their first born, is

confirmation of divine intervention to their heavenly petition. It shows to all that Matteo's once challenging foot is not his "Achilles heel" anymore!

**Boni Ruiendo** Completed his matric in 2018.

He will be attending the Varsity College to study Legal administration. We wish him all the best on his journey.



## **Announcements**

### **Project Gemini**

Project Gemini will take place in the UK this May Pieter Engelbrecht and Braam Naude will be representing St Dunstons.

## The Barnado's



The Barnado Family want to wish everyone a happy 2019.



## Upcoming Events

Project Gemini - May 2019

Long Cane Rally - TBC

National Reunion - May 2019