



OK, it's quiz time. Ever thought about what is the most complex thing in the world?

The Large Hadron Collider? Nope.

The inside of the world's largest telescope? Nope.

Any thoughts?

Well, guess what? The most complex thing in the whole world is inside your head.

It's your brain.



Trust me, it's amazing and we're learning more about it now due to all the fantastic things scientists are developing in order to study it.

Now, in order to understand ourselves and other people, it's really helpful to learn more about how our brains work. The brain is incredibly complex, so in order to simplify our understanding we often use a model.

A very smart guy called Daniel Kahneman wrote a book called *Thinking, Fast and Slow* which has sold over 2 million copies. Impressive eh?

In the book he talks about two systems or departments in your brain. Your fast system and your slow system.

He makes understanding your brain really simple and I'd like to develop our friend Daniel's idea (using baseball caps!) in order to understand why all people behave the way they do . . . including you.

So, imagine your brain being divided into two sections. One is the fast part of your brain, the other the slow part. Now imagine each section wearing a coloured baseball cap. One part wears a red baseball cap and the other a blue one. Any idea what colour your fast brain is wearing?

If you said '**Red**',
you're right.
Congratulations!



If you said '**Blue**', have
another guess . . .



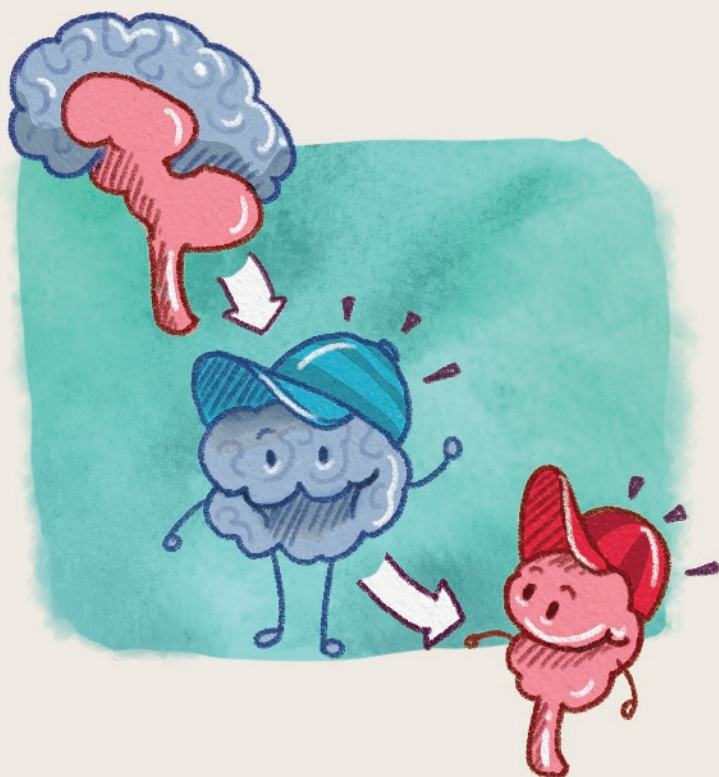
Now this may sound a little too simple, talking about different coloured baseball caps to describe parts of your brain, but I do this with adults including teachers and they find it helpful. In fact, I do work

with doctors who know a lot about this stuff and when I'm speaking about **Red** and **Blue** Caps, they don't start shouting

'You're a fraud,
you haven't got a clue what
you're talking about Paul'.

Well not to my face anyway. 😊

So, let's find out a little more about your **Red**
and **Blue** Cap Brains.



RED CAP BRAIN

This is the oldest part of your brain. When you were growing, in your mum's womb, this was the bit of the brain that developed first. It's sometimes called our primitive and emotional brain.



One of its main priorities is to keep us alive and also pursue things that bring us pleasure. Guess how long we humans (or Homo sapiens) have been strutting our stuff on planet Earth?

Any ideas? 20,000 years? 50,000? 100,000?

Maybe ask an adult if they know. I bet loads won't.

It's actually between 150,000 to 200,000 years. Now if the adults didn't get the right answer, please don't laugh at them and call them a loser – OK? They might be grown up, but that doesn't mean they know everything – despite what they tell you! 😊


Now, if they did get it right, that's pretty impressive. They deserve a high five or a fist bump, or if that's too much, at least a little smile.

Please don't say . . .

'What a loser. Fancy knowing the answer to that question. You need to get out more.'


Seriously, don't say that! 😊

HERE'S SOME THINGS ABOUT YOUR
RED CAP (FAST) BRAIN.

 It reacts fast to situations. It makes a choice even when it has not got all the facts.

Why?

Because one of its main purposes is to keep you alive.

 It's not bothered initially about free Wi-Fi.

 It's bothered about survival.



Over 150,000 years ago, your ancestors and mine weren't so concerned about how many Instagram followers they had or how to take the perfect selfie. They were more concerned about not getting eaten by an animal such as a tiger, woolly mammoth or an elite member of the SAS cat division.



Your **Red** Cap Brain developed what we call a fight or flight response.

What does that mean?

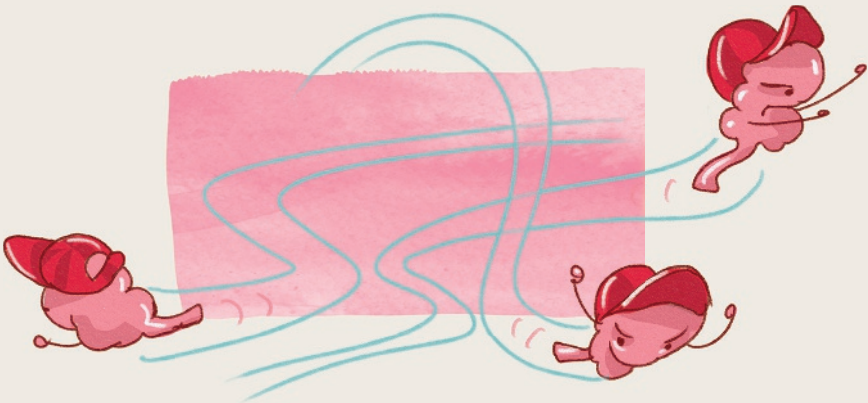
When faced by a threat from a predator who is looking for food in order to survive – and you could be the main dish on the menu – either get a group of your mates together and fight for your lives, or get your running shoes on and flee for your life.

Remember: you don't have to run faster than the deadly predator – just run faster than one of your mates!

That's how you stayed alive over 150,000 years ago.

So, your **Red** Cap Brain acts without thinking. It's impulsive. It goes with its initial feeling, even when it doesn't have all the information.

It guesses a lot of the time.



And that was useful sometimes.

Why?

Well imagine you and your mate Colin (Colin was a very popular name 150,000 years ago, honest) were having an afternoon walk after eating a woolly mammoth burger and fries earlier.

Suddenly you hear a rustle in one of the bushes nearby.

What do you do?

You react. It could be a saber-toothed tiger. You could be its dinner. No more woolly mammoth burgers for you. Your life would be over before you knew it.

You and Colin have no time to waste.

You must act.

Fight or flight?



Either way, you don't stand there contemplating if this would make a great photo opportunity, whether you should FaceTime a friend or let your WhatsApp group know the predicament you're in. There's no time.

That's why **Red** Cap (Fast) Brain is crucial. Now of course you and Colin might run away and then realise there was no saber-toothed tiger. It was just the wind (and to be fair, Colin does have a wind problem, which probably explains a lot about why you're his only friend).

So you reacted without having all the facts and
were wrong.

Hey ho.

But at least you're still alive.

You don't want to be like your mate Sunita, the most
laid-back 'no worries' friend you know.

Sunita's problem was that when she heard a sound
in the bushes, she thought 'that's just Colin dealing
with the effects of his burger'.

Maybe it was.

But what if Sunita was wrong?

What if it was a saber-toothed tiger?

That might explain why you haven't seen a lot of
Sunita recently.



So, do you see how **Red** Cap Brain would rather be safe than sorry? Sometimes it will be wrong – but at least it's safe.

Now all this happened over 150,000 years ago, before your Gran and Grandad were even born – and I know they're ancient.
But here's the thing.

We all still have a **Red** Cap Fast Brain now, all these years later.

Yep, inside every person on this planet is an inner cave dweller.

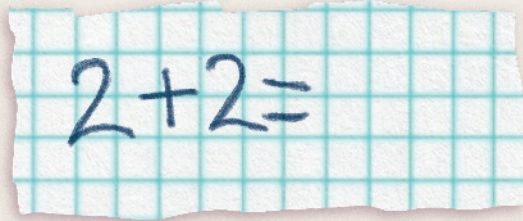
SO WHAT ABOUT OUR **BLUE** CAP?

Your slow brain, **Blue** Cap, is your thinking brain. We use it to plan, reflect and analyse in order to make decisions.

When **Red** Cap needs help, it calls upon **Blue** Cap – some of the time.

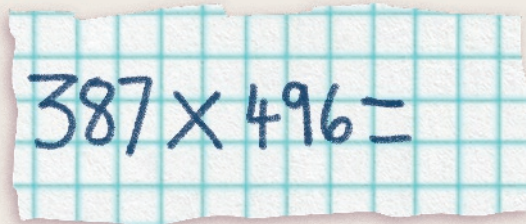


So, imagine if you're given the following question:


$$2 + 2 =$$

The likelihood is your immediate answer is 4. You automatically knew. You didn't have to think about it. That's **Red** Cap working.

But what if you got this question:


$$387 \times 496 =$$

Now you have to stop and think. (If you didn't, then you're a mathematical genius!)



You're now engaging the **Blue** Cap thinking part of your brain, but when you do so this takes more time and more effort than when you're using your **Red** Cap.

And here's the thing about your brain – it uses a lot of energy. So, if it can save energy it will – and when **Red** Cap is running the show, it's more likely to take the comfortable, easy, energy efficient, fast route.

The problem is, when it does so, it doesn't always make the best choices and can get things wrong.

Here's a great example of that.

Here's what seems a simple challenge that our friend Daniel Kahneman talks about in his book *Thinking, Fast and Slow*.

A bat and a ball together cost £1.10. Now the bat costs exactly £1 more than the ball.

So how much does the ball cost?

What do you reckon?

Most people, including adults, say the ball costs 10 pence.

But that's not right.

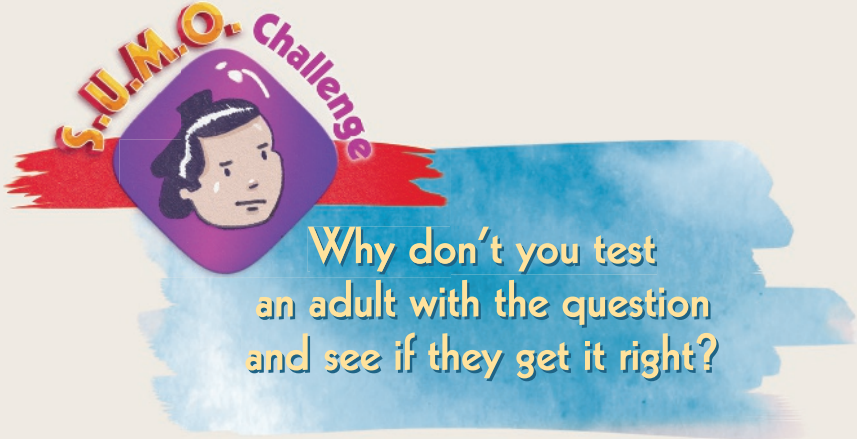
The ball costs 5 pence.

Don't believe me?

Let's do the maths.

If we assume the ball costs 5 pence and the bat costs
£1 more, the bat would cost £1.05.

$£1.05 + 5p = £1.10$. Ta da!



So, your **Red** Cap Brain jumps to conclusions,
goes with its initial reaction and speed counts more
than accuracy.

These are traits that helped us survive on the
African Savannah over 150,000 years ago. And
sometimes your Red Cap Brain reactions are right.
But sometimes they're not and they don't always
help us in today's modern world, particularly when
technology means we can respond so quickly to
messages we get from our mates.



**Instant messaging can lead to
instant escalation**

Trust me, engaging **Blue** Cap and allowing ourselves time to slow down and process what others say or do could save us so much hassle.

HERE ARE THREE THINGS TO BE AWARE OF WHEN **RED CAP IS IN CONTROL:**

1. We worry about things that don't actually happen.



2. We believe 'if I think it, it must be true'.

'if I think it, it must be true.'



3. We believe 'if I feel anxious, there must be danger'.



Don't believe everything you think

IMPORTANT POINT

The media have one goal – to get our attention. And the easiest way to do that? Make us fearful or make us angry. And how do they do that? By appealing to our **Red** Cap Fast Brain. Trust me, it's understandable why young people and adults can get stressed by reading the news headlines sometimes.

In a nutshell, our **Red** Cap Brain is always keeping careful watch for possible danger or difficulties, but can at times cause us to be worried and anxious about imaginary things.

As a result, we can feel anxious about trying or experiencing new things. It's OK to have uncertain feelings, but if we're to say YESSS to new opportunities, we need to make sure our **Blue** Cap Brain helps us calm down and get a sense of perspective. Whether that new thing is going to new places, taking up a new hobby, travelling on your own somewhere or deciding to make friends with someone you don't know, that's all part of saying YESSS to life!

And our **Blue** Cap Brain wants to have its say, but remember:



We access Blue Cap Brain when we decide to slow down and intentionally use it


And how are you going to do that? Stay tuned because that's what the rest of the book is about.


Finally, here's another way to think of our **Red** and **Blue** Cap Brains. Imagine in a car, **Red** Cap is the accelerator and **Blue** Cap is the brake. You need both in order to drive safely – and if we are going to enjoy our journey on this planet and travel well, we need both parts of our brain working well together.





So let's do a summary of each of our **Red** and **Blue** Cap Brains and what they are responsible for.


RED CAP FAST BRAIN


 Threat detector – sometimes sees threats that aren't there. Still, better to be safe than sorry


 Driven by feelings and emotions and the pursuit of pleasure

 Reactive and impulsive

 Values speed over accuracy


 Jumps to conclusions without having all the facts


 Bothered about satisfying its feelings now in the moment


 Not bothered about or even considered what might happen in the future


BLUE CAP SLOW BRAIN

 Thinks long term


 Rational and logical


 Weighs up options – 'Let's explore this more'

 Analyses

 Reflects

 Plans

 Considers other people's perspective


 Aims to stop us doing stupid things


One final thing to be aware of before we explore the rest of our SUMO Secrets is this. When we're going through our teenage years, a lot is happening in our brains. **Blue** Cap Brain is not fully developed yet so it still has a lot of work to do to influence **Red** Cap.


(In fact, it is not fully developed in most people till our mid 20s!) Sometimes it's like **Red** Cap is dominating completely – and it will, unless you learn how to manage it . . . and that's where our next five SUMO Secrets will really help.

BLUE CAP BRAIN REFLECTION TIME



 Can you think of a time when you were concerned or anxious about something but it ended up being OK?

 Have you ever made a decision about someone but then later changed your opinion of them? (If so, maybe that's because **Red** Cap Brain jumped to conclusions too quickly.)

 Which of your mates can you run faster than? 