



Science says men have bigger brains, but that doesn't mean they're brainier. Once again, boys, it's what you do with it that counts.

"Is not a problem that a woman have smaller brain than a man?" Comedian Sacha Baron Cohen asks this question in his new movie, Borat - enraging a group of veteran feminists in the process - but, weirdly enough, the cartoonish Kazakh's query is based in scientific fact.

Turns out the satirist's cousin is renowned British psychopathology professor Simon Baron-Cohen, who literally wrote the book on it: The Essential Difference: The Truth About the Male and Female Brain.

Baron-Cohen is one of the leaders of the scientific trend of gender-specific studies, devoted to the proposition that men and women are different. Really different. Right down to

their individual brain cells.

"People assume men and women are interchangeable, and that's just not so,' Partnership for Gender-Specific Medicine at Columbia University Dr Marianne Legato says. She is also author of Why Men Never Remember and Women Never Forget.

According to Legato, the medical community needs to know much more about how men and women work, from their brain chemistry to vital organs, in order to treat them.

In centuries past, men were almost always the subjects of medical research, but more recently, the pendulum has swung the other way.

These days, studies devoted to women's health are far more common - "and we felt

men deserved attention." Legato says, "so we separated

In her book, the Columbia professor explores the chemistry of male and female brains and reinforces some cherished Men Are From Mars stereotypes:

- Women remember better even things that happened a really long time ago.
- Men are better at mapreading. They also get turned on much easier.
- Women thrive on talking; men do things on their own. But all this isn't quite as

simple as it sounds. For example: A woman's brain is, in fact, about 10 per cent smaller than a man's. even when factoring in physical size difference - but it also has much more going on, neuron-connection-wise.

In other words, writes Legato, "women get more brain bang for their buck".

Thanks to Stone Age wiring, women also have a far greater capacity for understanding speech and body language, and have "elephantine"

memories, especially when it comes to negative experiences.

Looking at primitive societies explains why this is so: Women spent much of their time in domestic communities, talking with other women and children.

Having a good memory for perilous situations makes sense when you're a caretaker whereas, "if a man has perfect recall of how scared he felt during the last mammoth hunt, he'll be far less enthusiastic about going out this time," Legato says.

Men have a much better approach to arguing with a mate, she says: "When in doubt, just shut up.3

Of course, we're not in the Stone Age anymore, so it might stand to reason that the divergent male and female brains would have adapted to be more like one another and perhaps, in time, they will, Legato says.

"Evolution depends on tiny, tiny, infinitesimally small pieces of progress," she says, "It takes millions of years."

FIGHTING

Guys, you'll be having a mundane argument with your girlfriend, and all of a sudden she'll throw in that you forgot her birthday last year. Why?

High levels of estrogen, which aids memory (men have this hormone too, but not nearly as much).

She'll also still be mad about it the next morning, because her cortisol levels (the stress hormone) stay elevated way longer than yours.

Best of luck.

"We develop a tolerance to the individual responsible for turning on the drugs within us. Passion diminishes"

Maybe it isn't about him. Those eyes that dig at your heart and make you want to empty everything into them. Maybe it isn't about someone's specific qualities at all. According to anthropologist Helen Fisher, romantic love isn't even an emotion.

If love isn't an emotion, then what the hell is it? Fisher says it's a drive, which is part of the motivational system of the brain. Excuse me?

I did some research. Apparently, specific neurotransmitters in the brain are linked to the three types of love, which Fisher classifies as: lust, attraction and long-term attachment. (Where, I wonder is the fourth category, Love Gone Wrong?)

Although not a neurobiologist, I list the chemical cocktails of love:

Lust, driven by testosterone in both men and women, is what causes us to seek sex. It's easily observed at closing time at bars across the country. Aka: The craze for booty.

ATTRACTION/ROMANTIC

Attraction or romantic love is related to what Fisher refers to as "abnormalities" of serotonin, dopamine and norepinephrine. Meaning? The state of romantic love is biochemically similar to obsessive-compulsive disorders.

Could this be true? Was love similar to mental illness? Surely not. But suddenly all those rash. feckless things I've done in the name of love. including once climbing in the bedroom window of someone with whom I was infatuated, came dizzyingly back to me.

Yes, OK, I can see the connection. Dopamine, "the pleasure chemical," plus norepinephrine create intense energy, euphoria, exhilaration and the motivation to win rewards. It makes us bold, and willing to run risks. It's what makes us feel in love.

ATTACHMENT

The hormone oxytocin promotes a feeling of connection and bonding. It's released when a mother nurses an infant, when long-time couples hold each another and, during orgasm.

THE PROBLEM

According to Dr Anthony Walsh, we develop a tolerance to the individual responsible for turning on the drugs, like dopamine, within us. Passion, as we know it, diminishes.

THE REMEDY

Biochemically, the way to make a long-term relationship work is to stimulate oxytocin through, Fisher says, things like massage and sex. But if it's hard-core passion you want to rekindle, the answer lies in doing hard-core activities. Research conducted by New York psychologist Arthur Aron found novelty sparks off dopamine, which heightens the feelings of attraction. Doing novel things with your partner gives a sense of adrenaline, which equates to deeper excitement. It may be time to take your lover bungee jumping.

THE FUTURE

One day, researchers say science may be able to create love potions, which will mix chemicals to enhance lust, attraction and long-term bonding. Perhaps in 2069 all we need will be over-the-counter dopamine.

BODY LANGUAGE Even as babies, girls are better at knowing what gestures mean and reading facial expressions – so they grow up using and reading more body language than men (helpful when you have an infant who can't speak yet).

Since men don't have the same brain capacity to read non-verbal gestures, those just become distracting, or else get ignored.

Translation: Subtle hints don't work well on men.

HOOKING UP

Contrary to popular belief, it's not guys who make the first move. If a women returns a man's glance and holds it, that signals that she's approachable – giving him the green light to come over (gestures so primal and universal. "the same thing is happening in the bar next door and in one three-quarters of the way around the world").

So they only respond when they're told they have a chance

COMMUNICATION

Men's and women's brains process language differently: in one study, the higher the testosterone level men had, the lower their verbal ability.

But while women have better-developed speech centres, men communicate more efficiently.

Hence, her five-minute soliloquy about where the relationship is going, followed by his response:

Questions, thoughts, sexual tips? Email me at dearbella@mxnet.com.au or check out www.drbella.com.au. Also, apologies lovelies for not responding to all your letters. I'm having a little man trouble of my own, but I'll write to each and every one of you soon, promise.