



## The case of the brain attic

You see, but do you observe? One is a passive act of perceiving the world around us; the other, an active process, in which we engage our senses to become more aware of our perceptions. The subtle difference between them is one of the many things that distinguish Holmes's way of thinking from Watson's, one which inspired Konnikova to write this book.

Konnikova uses two concepts as her framework. One is the 'brain attic', which according to Holmes, is a physical space within our heads, specially fashioned to store all sorts of objects. The other is the dichotomy between two different modes of thinking – an automatic one driven by our perceptions, and a slower, more deliberate one, which is carefully monitored by the brain's executive control mechanisms.

The Nobel Prize-winning psychologist Daniel Kahneman distinguishes between the two in his recent book *Thinking, Fast and Slow*. For Konnikova, they exemplify the difference between System Watson, an automatic, reflexive autopilot-like mechanism, and System Holmes, which is more reflective and based on past knowledge.

Thus, we learn how unconscious processes influence our perceptions – the first step of storing a new item in our brain attic – and also how Holmes and Watson differ in how they store items. Holmes is mindful of how our biases and moods can colour the way we see things. Watson, however, is not: he therefore sees things in a positive light when he is happy, and is far more susceptible to phenomena such as the halo effect, whereby we ascribe positive characteristics to attractive people.

Konnikova portrays Holmes as a poster-boy for the scientific method, whose creation was inspired Joseph Bell, for whom Sir Arthur Conan Doyle worked as a clerk in the late 1870s. A surgeon at Edinburgh Royal Infirmary, Bell is also considered one of the pioneers of forensic pathology, due to his powers of observation, which apparently enabled him to deduce a great deal of information about his patients with a single glance.

Holmes's methods of observation and deduction pre-empted many of the new ideas that have emerged in psychology and neuroscience, from the embodied cognition hypothesis, which holds that mental processes are the product of interactions between brain, body and environment, to the default mode network, a recently discovered set of brain structures that are activated when we disengage from the outside world and enter our internal world of daydreams, memories and imagination.

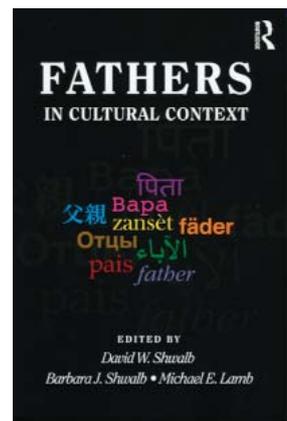
At times, fitting all of this into the framework seems like a bit of a stretch, which ascribes too much to our intrepid hero. At others, it is somewhat contradictory: first we learn that we should attend closely to the information entering our brain attics, but then we are told that too much of this is not conducive to creativity, and that we should sometimes let our minds wander freely.

*Mastermind* is a well-written and entertaining book, which covers a lot of ground, albeit somewhat briefly. The central concept of the book – the brain attic – is not useful for understanding how the brain works, however. From the classic 1920s experiments of Frederic Bartlett, we know that memory is reconstructive, rather than reproductive. In other words, the contents of our brain attics are liable to move around after they have been stored there, and to change when we retrieve them.

People with memory deficits often have difficulty imagining the future, and this has led some researchers to suggest that memory evolved the way it did not to recall past events, but to simulate ones that have not yet occurred. Konnikova, a PhD student in psychology at Columbia, ignores all of this, so I can't help thinking that she should have done a little more detective work.

| Canongate; 2013; Hb £16.99

Reviewed by Moheb Costandi who is a neuroscientist turned writer (see [www.twitter.com/mocost](http://www.twitter.com/mocost))



### Global fatherhood



Fathers in Cultural Context  
David Shwalb,  
Barbara Shwalb &  
Michael Lamb  
(Eds.)

This book demonstrates how far research on fatherhood has come since the 1970s and yet remains piecemeal and potentially jaundiced. Bringing together research from five continents, this collection explores the multiple contexts in which fathering occurs and how men's other economic and social roles constrain 'paternal involvement'.

Whilst contributors repeatedly refer to worldwide increases in intimate fathering, new modes of fatherhood seem more diverse and complex than the past. It is this volume's ability to link general themes to the subcultural variation of a specific region that gives the text its richness. Whether it is the impact of migrant labour structures on contemporary Arab fatherhood or the European phenomenon of 'multiple fatherhood', the contributors are adept drawing out the social and economic context of these transitions.

Although written for a research-oriented audience, the way the text challenges any naturalised notion of fatherhood would be of value to any family practitioner. Most striking was the editors' concern about the way that the North American preoccupation with fathering as 'essential' to child development skews research priorities in other regions.

| Routledge; 2013; Pb £37.99

Reviewed by Warren Matofsky who is a clinical child & family psychologist in Sussex



## The grand dame of British science

Professor Uta Frith on *Desert Island Discs* Radio 4

Kirsty Young introduces Professor Uta Frith as a 'grand dame of British science'. This is in light of her groundbreaking contributions to our understanding of autism, which led to an honorary damehood. Uta explains that to develop an understanding of autism it is necessary to look behind the behaviours to comprehend what is at the core of this phenomenon. Can we take the same approach to discover what is at the core of the phenomenon that is Uta Frith?

Born in Germany in May 1941, Uta describes a childhood which was largely protected from the harsh realities of war. She reveals her mother's sense of determination and her father's artistic talents, which appear to have influenced her self-confidence and capacity to look at the world differently. Motivated by a passion to learn, Uta arrived in England where her interest in cognitive psychology was further inspired. It was here that she nurtured her career and her family, having two sons with her husband Chris Frith.

Uta explains that her ability to manage a successful scientific career and a family was achieved by the employment of a full-time nanny. Although recognising that this decision would be unpopular to some, Uta reflects that these choices were based on her own views of what she thought was

right. Although this issue would not be presented in the same way to a man, Uta does not adopt an overt feminist stance but retains the clear mindedness of a scientist.

Uta's sense of pragmatism and humility appear to be attributes that are woven throughout her personal and professional relationships. A fellow Professor, Athene Donald, recently described her as 'the exact opposite of a jerk' (see [tinyurl.com/notajerk](http://tinyurl.com/notajerk)), and for somebody who studies deficits in social communication it was striking how adept she was at complimenting Kirsty Young on her questions.

I was also struck by Uta positioning her intellectual contributions to science as a small (albeit integral) part of the narrative. Her heroes are her participants with autism and their parents, from whose perspectives she has learned a great deal. Now in her retirement, she supports today's female scientists, hoping to inspire them to make time for fun via her 'science and shopping network'.

Uta's enduring love for a profession which loves her right back was clear. She



will never tire of discovery, admitting she is just as baffled by autism as she always was, and describing the brain as a garden, full of the most interesting things that have to be cultivated and constantly checked. It was also

fascinating to hear of Uta's

discovery of psychology, and her excitement at a pioneering time: the overturning of psychoanalysis. 'You don't have to just fall in with these big stories, you could look at it in a different way.'

Accompanying her to the desert island will be a handwritten medieval manuscript and the doll's house made for her by her husband and sons. Uta says she remains a very great puzzle to herself, but to me these items reveal what is at her core; an inquisitive mind with a passion to understand others and a loving woman whose life is intrinsically woven into her family's genealogy. [Listen again at [tinyurl.com/utafrihthid](http://tinyurl.com/utafrihthid)]

**I Reviewed by Donna Peach** who is a postgraduate student who volunteered for this review by following us on Twitter @psychmag



## Neuroscience for all

Barbican Weekender: Brain Waves  
Barbican and Wellcome Trust

Billed as 'two brainy days of dance, theatre, music and art for all ages', the Barbican Weekender: Brain Waves on 2-3 March, kicked off the Barbican's month-long season Wonder: Art and Science on the Brain (running to 10 April: [www.barbican.org.uk/wonder](http://www.barbican.org.uk/wonder)). A collaboration between the Barbican and the Wellcome Trust, the season aims to explore the relationship between the arts and neuroscience. Ever a fan of events that disseminate science to the masses, I headed along to see what was on offer.

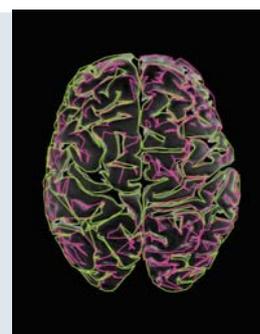
Before leaving, I had already enthusiastically studied the online video by Dr Peter Lovatt (psychologist and dancer) teaching me the moves to 'brain flash', their brain-inspired flashmob dance, which was to allow me to 'become part of a human brain wave'. On arrival, I embarked on a 'Sonic Tour of the Brain' in which I was taken through a range of recordings of sounds of a brain, including what my brain would sound like if it was scooped out of my skull (!) and the sound of the electrical activity in an epileptic seizure. I then passed by a table filled with wide-eyed children listening to a neuroscientist telling them facts about the brain before they proceeded to dissect (and eat) a jelly brain.

Other stalls, with equally enthusiastic scientists hosting them, invited me to 'knit a neuron' or 'build-a-brain'. Cambridge University's 'Naked Neuroscientists' gave an interactive talk, which

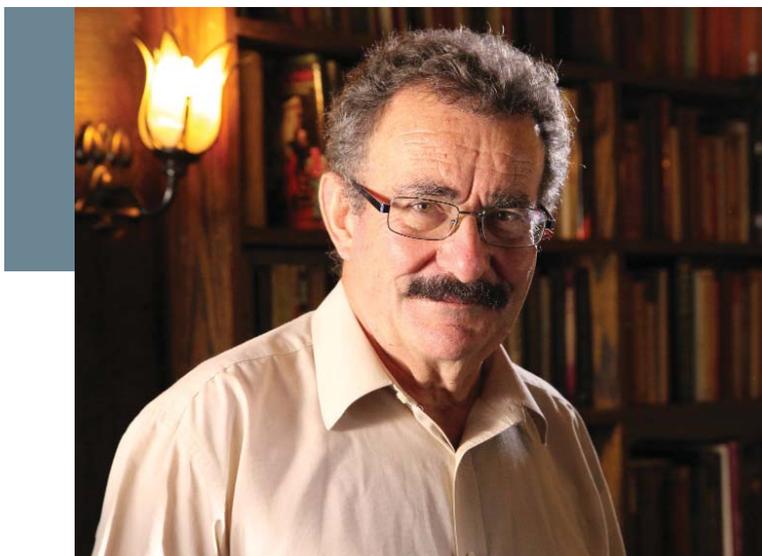
was a hit with the kids. They had the chance to watch how electrical signals control our muscles (and watch adults being given electric shocks) and to watch someone being given an EEG. Perhaps their enthusiasm was catching, as I was inspired to put aside my scepticism for stage hypnotism and go to watch 'The Singing Hypnotist' who was doing several shows over the weekend. He described himself as 'the bit in the middle of a Venn diagram of science and performance' and indeed he was. Thoroughly entertaining, but also giving a nod to the science of what he was doing... with a bit of a CBT /mindfulness message to boot (the evidence-based practitioner in me breathed a sigh of relief).

I wouldn't say I came away from the weekend having personally learnt anything new about my body's most complex organ, but I had a real sense that the weekend was achieving its aim of sparking the interest of a new generation of neuroscientists and making neuroscience accessible to all.

**I Reviewed by Rachel Brand** who is a clinical psychologist working in South West London and St George's Mental Health Trust



HEIDI CARTWRIGHT



BBC Pictures

### 21st-century boys and girls



Child of Our Time  
BBC One

At the start of the millennium the BBC set out to complete a longitudinal study, to capture the lives of 25 children born in the first few months of 2000. The programme follows the children through every stage of their lives (see [tinyurl.com/c8gw59l](http://tinyurl.com/c8gw59l)).

In the initial programmes we saw the children undergo tests of a quantitative nature, supported by psychologists working as academic consultants (see [tinyurl.com/coot2007](http://tinyurl.com/coot2007)). Tests that would tell us about their personalities and their abilities in school, traits which differentiate them from their siblings. Now the programme has taken a whole new approach as the children hit their teenage years, taking us into the lives and perceptions of the parents and how they feel about their children and the relationship they have now they have reached early adulthood and started secondary school.

The programmes covered a diverse range of struggles including divorce and separation, terminal illness, difficult or traumatic births and bullying. This season has an emotional edge to it and focuses

on the thoughts and reflections of the parents during this time. There's a much more qualitative approach than before; detailed, emotional accounts from children and adults alike talking about parts of their life we haven't yet had a glimpse of.

Inevitably, as with a lot of longitudinal studies, there are children who featured in the programme earlier in the decade that have not made an appearance. Due to reasons unknown we are unable to see these children in the latest coverage, which is a shame. However, we see original footage of the children in their childhood years and we can remind ourselves of the child they once were. The old footage is a pleasure to watch, the stories told are gripping yet touching, ordinary yet extraordinary and full of circumstances to which we can all relate. Coverage of such common circumstances may help to provide support to those who may have been affected by the topics covered in the programme.

**Reviewed by Stephanie Wetherhill, Brain injury Rehabilitation Support**

### A 'go to' book



Observing Children in Their Natural Worlds: A Methodological

Primer (3rd edn)  
Anthony D. Pellegrini

This updated third edition reflects changes in the research environment, incorporating information about the use of computer technologies. The mix of theory, practical advice and accessible examples make this the perfect 'go to' book for those using or considering observational methods.

The experience and passion of the author in this area is clear through the careful thought that has gone into the book and the detail included, which gets the reader excited about researching with children. There is an easy flow to the book from conceptualisation of

the research to completing a research report that does justice to the study and the children. The ethics chapter is particularly useful and insightful for those who may be unfamiliar with the different data obtained from observation research, or as a refresher to guide against any accidental issues of plagiarism or incorrect reporting.

This book is accessible to those who are new to the area and also those with greater experience. The glossary and easy-to-use sections make it easy to dip in and out of to support high-quality research.

**Psychology Press; 2012; Pb £31.99**

**Reviewed by Anna Mary Cooper** who is a PhD student at the University of Salford

### reader recommends

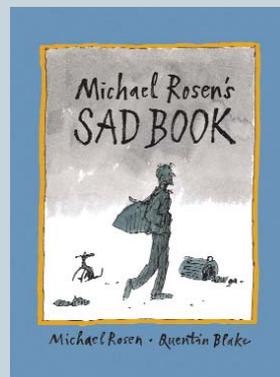


Michael Rosen's Sad Book  
Michael Rosen, illustrated by Quentin Blake

I used this book with a boy whose brother had died of leukaemia. When I showed him the page with a picture of a smiling face, with the sentence underneath: 'This is me being sad', he said 'That's me!' It opened up the possibility of talking about the sadness he felt which he was careful to keep to himself.

Michael Rosen's sad book is a beautiful piece of writing with brilliant illustrations which I would recommend in clinical settings but also as a general book for children. It deals with subjects of sadness, depression and bereavement with a realistic touch.

Children's books can sometimes veer off into melodrama and cliché, or avoid dealing with death in a clear way, but this book treats children as intelligent and sensitive,



explaining Michael's experience of the death of his son Eddie.

Michael explained to me why he wrote the book: 'I wrote the book because a child at a show I had just done asked me what had become of Eddie. She asked me because I had written about Eddie when he was a little boy. So I explained to the girl that Eddie had died. Then it occurred to me that I had something to explain to myself about what had happened and something to explain to other children who might want to know what had happened to him.'

## Thinking and laughing together



Little Box of Big Questions: Philosophical Conversations with Children and Young People  
Irvine Gersch & Anna Lipscomb  
Big Questions From Little People Answered by Some Very Big People  
Compiled by Gemma Elwin Harris

Small people love big questions. Why can't animals talk like us? What is fate? If a cow didn't fart for a whole year and then did one big fart, would it fly into space?

Under consideration here are two offerings sure to stimulate many weird and wonderful conversations with the little people in your lives, whether that's personal or professional. The first, developed by educational psychologists Professor Irvine Gersch and Dr Anna Lipscomb, is a set of 16 cards in a tin. The cards are intended to 'provide prompts and a stimulus to a meaningful and stimulating, positive and enjoyable

conversation which helps to understand the child's view about themselves, their relationships, their lives and their beliefs'. Designed for children aged 9-14, the cards can be used individually or as part of a group, and either facilitated by an adult or between peers.

I tested them out with my nearly nine-year-old. The thought-provoking prompts – what do you think makes for a happy life, how do you calm your mind, do you think that people's lives are set out for them, etc. – perhaps deserved a slightly less taciturn response than he provided. There was a lot about playing in goal for Manchester United. And in response to 'What do you think your future will be like?', I only got 'I'm probably just going to work in an office – most people do'. But maybe that's the point, in that nine-year-old boys are generally better at asking such questions than answering them, and any prompt is potentially useful. If a child needed to speak openly

about the things that were most important to them, I can see that this resource would provide the time, space and kindness that was required. Even if there's nothing preying on their mind, it's no bad thing to have a reminder, as my son said, of 'how good it is to be me'.

*Big Questions From Little People* tackles queries of a less introspective nature, taking as its inspiration Einstein's quote: 'The pursuit of truth and beauty is a sphere of activity in which we are permitted to remain children all our lives.' The book, in aid of the NSPCC, gathers over 100 real questions from children and puts them to 'some of our best-loved and most knowledgeable experts'.

Psychological topics and experts are well represented: 'How are dreams made?', 'Is the human brain the most powerful thing on earth?', 'Why can't I tickle myself?', 'How does my brain control me?' There is a bit of a tendency to seek responses from 'big names' like Derren Brown, Susan Greenfield and



Rupert Sheldrake, rather than psychologists who could have taken a more evidence-based approach, but the answers are really just a jumping-off point for further discussion anyway. And there's still plenty of quality, such as Gary Marcus on 'What makes me me?', Robin Dunbar tackling 'How do you fall in love?', and Tanya Byron's take on 'Why do I always fight with my brother and sister?'.

All in all, it's for a great cause and taking a couple of these before bedtime will be just the tonic for a family that likes to think and laugh together. Oh, and in case you were wondering about the answer to the cow fart question, it's 'No, but it would get three miles'.

**I Reviewed by Jon Sutton,**  
Managing Editor of *The Psychologist*

The book has a sense of exploration of a raw and painful subject, holding something up to the light which does not always get examined so honestly and with such simple eloquence of word and illustration.

Of Quentin Blake's illustrations, Michael told me: 'I think what he has done is quite remarkable. He has re-imagined my words and found an authenticity to match my feelings that I find quite compelling and convincing.'

Highly recommended as a stock book in any child's library to help them to understand death and dying, and particularly useful if you are working therapeutically with children who have experienced bereavement or depression.

**I Reviewed by Lucy Maddox**  
*who is a clinical psychologist in the NHS and Associate Editor for 'Reviews'. Do you have a favourite book, film or album that has you have found of value in your personal or professional life? Contact Lucy on maddox.lucy@gmail.com*



## The good, the bad and the chronic

Understanding Pain  
Fernando Cervero

In *Understanding Pain* Fernando Cervero effectively synthesises information from a wide variety of disciplines – including neuroscience, history and sociology – to form an interesting and readable introduction to the world of pain research. No prior knowledge is assumed, however the language does become quite technical in places as the book is heavily based in neuroscience. This reflects the author's passion and expertise in the subject, which comes through in the confident writing style displayed.

The book provides a well-paced yet thorough look at methods of researching pain throughout history, as well as a nod to the future in discussing genetic treatments for pain, which appear not to be as far away as one might think. Some of the examples used are not for the faint of heart, but such stories are never used

intentionally to shock and are dealt with sensitively.

Cervero distinguishes between 'good' pain, which is protective, and 'bad' pain resulting from disease or injury, and places chronic pain sensibly outside of either as an anomaly that can exist for no apparent reason. As a clinical psychologist working in pain management, I would have liked to see more on chronic pain and psychological approaches to managing this, as the book focuses heavily on medical and surgical interventions. However, there is a wealth of literature out there on this topic and this book is surely a timely addition for the neurobiological researcher.

**I MIT Press; 2012; Hb £17.95**

**Reviewed by Sarah Chafer** *who is a clinical psychologist in the NHS*



CHANNEL 4: RAY BURRISTON

### Kindness is magic



Derek  
Channel 4

Ricky Gervais' new comedy *Derek* is set in a nursing home and centres around the series' namesake Derek (Ricky Gervais), a loveable character who works in the home and teaches us that 'kindness is magic'. The series has been described as a comedy, but the comedic element takes a backseat to the thought-provoking issues raised throughout. The childish humour that we've come to expect from Gervais is of course present, but this does not dominate.

Derek is portrayed as 'different', but without explanation. This is addressed in the first episode of this series, when an inspector comes to the nursing home (looking to make cuts) and asks Derek if he would agree to be tested for autism. 'If I am 'tistic, will I die?.' No, he's told. 'So will that change me in any way, would I be the same person?' he asks. 'Yes,' he is reassured. 'Don't worry about it then,' says Derek with a shrug. This provides a poignant reminder that mental health labels may not always be necessary or helpful. Perhaps we as psychologists are equally to blame for the need to label mental illness: it makes us feel better because we know what we're dealing with, but does it help the person receiving the diagnosis? It is also a beautiful example of how the series is not intended to make fun of Derek, as some critics have suggested. Instead we as the audience smile with Derek as he gets one over on the 'baddy' of the episode. Far from wanting to laugh at Derek, I found myself falling in love with him throughout the series.

Gervais seems to have purposely created the care home, in which *Derek* is set, as a warm and caring environment. This allows him to skip over any political issues surrounding quality of care and to focus on the larger societal issue of how we view the elderly. *Derek* reminds us that elderly people were once young too and that they have a valuable place in our society. I was surprised to read reviews claiming *Derek* is too saccharine, as I felt these were important issues tackled well.

I also found the 'Making of' programme interesting from the perspective of the psychology of comedy. Gervais explained how Derek is, in his eyes, perfect: kind, sincere, gentle. If he looked, walked and sounded perfect too, it wouldn't be a surprise when kindness comes along to trump everything. The director also explained how, unlike his previous sitcoms, he was dealing in characters where there is no gap between what they are and what they think, or between what they think and what they say. Everyone speaks their mind.

Clichéd as it sounds; *Derek* will make you both laugh and cry. It is a beautiful series that has surpassed my expectations and addressed important issues relevant to psychology. I think Gervais will struggle to top this masterpiece that seems to have touched the hearts of a much wider audience than he would normally appeal to. **I Reviewed by Caroline Flurey** who is a post-doctoral research fellow at the University of the West of England



### Strong coffee needed

Current Issues in  
Developmental Disorders  
Chloë R. Marshall (Ed.)

This book has a great introduction, full of information, issues and dilemmas. Unfortunately, the individual chapters do not, in the main, live up to their promise.

The book claims to cover syndromic and non-syndromic conditions, but tends to focus on dyslexia and language disorder (although it's occasionally asserted that these are used as lenses through which other developmental disorders can be understood).

Some statements I was unconvinced by (e.g. 'the genetic basis for autism and ADHD is clear'); some sentences were riddled with abbreviations. There is a glossary but it did not contain the terms I turned to it for: 'syndromic condition' and 'neuroconstructivist approach'.

As someone who views difference as socially constructed, I shuddered at a conclusion: 'In order to understand developmental disorders (and have realistic hope of remediating them), we require an understanding of the causal chain between genes and behaviour...' But, chapters on genetics and modelling, although needing a quiet space and strong coffee to understand right through, were illuminating.

If you have an interest in dyslexia and language disorders in particular, and don't mind reading information from a generally positivist perspective, you may well love this book.

**I** *Psychology Press; 2012; Hb £40.00*

**Reviewed by Dr Rachel Holt** who is a clinical psychologist working in a learning disability team in Hertfordshire

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