The Mind is Flat: The Illusion of Mental Depth and The Improvised Mind

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A radical reinterpretation of how your mind works - and why it could change your life

'An astonishing achievement. Nick Chater has blown my mind' Tim Harford

'A total assault on all lingering psychiatric and psychoanalytic notions of mental depths ... Light the touchpaper and stand well back' ***New Scientist***

We all like to think we have a hidden inner life. Most of us assume that our beliefs and desires arise from the murky depths of our minds, and, if only we could work out how to access this mysterious world, we could truly understand ourselves. For more than a century, psychologists and psychiatrists have struggled to discover what lies below our mental surface.

In *The Mind Is Flat*, pre-eminent behavioural scientist Nick Chater reveals that this entire enterprise is utterly misguided. Drawing on startling new research in neuroscience, behavioural psychology and perception, he shows that we have no hidden depths to plumb, and unconscious thought is a myth. Instead, we generate our ideas, motives and thoughts in the moment. This revelation explains many of the quirks of human behaviour - for example why our supposedly firm political beliefs, personal preferences and even our romantic attractions are routinely proven to be inconsistent and changeable.

As the reader discovers, through mind-bending visual examples and counterintuitive experiments, we are all characters of our own creation, constantly improvising our behaviour based on our past experiences. And, as Chater shows us, recognising this can be liberating.

The Mind is Flat: The Illusion of Mental Depth and The Improvised Mind Details

Date	:	Published March 29th 2018 by Allen Lane
ISBN	:	9780241208441
Author	:	Nick Chater
Format	:	Hardcover 272 pages
Genre	:	Psychology, Nonfiction, Science, Philosophy, Biology, Neuroscience, Audiobook

From Reader Review The Mind is Flat: The Illusion of Mental Depth and The Improvised Mind for online ebook

Jonathan Geurts says

Chater uses readily available findings on the narrow focus of perception to arrive at the surprising conclusion that ideas are generated ad hoc and from context rather than from reference to prescriptive mental models. Essentially, our thought is an ever-emergent present state derived from pattern-based interpretation of internal and external sensory experiences. The book itself makes a lot more sense than the last two sentences and makes me doubt just about every explanation or justification for behavior that I have heard, including my own.

Ian Pitchford says

Counterintuitive

Chater uses a variety fascinating studies from the scientific literature to come to strikingly counterintuitive conclusions about the nature of the human mind. In short, “the problem is not that it is difficult to fathom our mental depths, but that there are no mental depths to fathom.” This conclusion that so much of what we imagine to be a reflection of our hidden depths is actually constructed on the fly is actually incredibly liberating.

Adam Osth says

Cognitive science book with the thesis that many aspects of the mind, from emotion, memory, language, and even personality, and are not from any kind of "inner depths" but instead constructions in the moment. I've read some of Nick Chater's scientific articles so I'm not surprised to see a lot of compelling experimental results in favor of this idea, but was quite pleasantly surprised to see that he writes *beautifully*.

My only criticisms are the fact that it gets a bit redundant with how much he keeps hitting the thesis long after the point has really been made clearly. In addition, while he talks a lot about empirical findings from cognitive science, it would have been nice to use this as an opportunity to talk about actual cognitive theories which often operate under the same premises.

Ramón Nogueras Pérez says

Este puede ser uno de los libros más importantes del siglo XXI en el mundo de la psicología.

El autor lleva más allá las ideas de Daniel Dennett sobre la consciencia y acumula una gran cantidad de pruebas que muestran que el inconsciente tal y como lo concebimos, simplemente no existe. No hay profundidades ocultas que podemos sacar a la luz. El cerebro piensa una cosa cada vez, en un constante esfuerzo por dar significado a los estímulos del entorno. Todo es percepción y memoria. No hay más, y es algo que debería alegrarnos.

La tesis de este libro básicamente destruye toda la psicología popular, todas las pseudoterapias derivadas del psicoanálisis, todo. Es un borrón y cuenta nueva.

Haré cuando pueda una reseña más detallada en el blog, porque hay que ir capítulo a capítulo. Pero este libro es esencial.

Sarah Wilson says

The illusion is .. that this book has any depth. To be fair., though, if you haven't read much (any) psychology this would be a good way to get introduced into a truly fascinating subject - the human mind. This is not a text book, but it does take the reader through a series of fairly well-known texts to support his argument. But, if you've read "Thinking, Fast and Slow" you probably won't get much new out of it. I was recommended the book by an economist that had rated it very highly. I am not sure why to be honest. Perhaps it was new material to him, if so. perhaps that just highlights the problem with economists - they only just seem to be getting round to the idea that human beings aren't all the predictable, profit-seeking, rational, one size fits all creatures their models assume.

Teo 2050 says

[Chater N (2018) (07:26) Mind Is Flat, The - The Illusion of Mental Depth and The Improvised Mind

Prologue: Literary Depth, Mental Shallows

Part I: The Illusion of Mental Depth

01. The Power of Invention
– artificial intelligence and the ‘inner oracle’
– the illusion of explanatory depth
– true believers in the inner oracle
– psychology: art or science?

02. The Feeling of Reality
– from words to pictures
– the sparseness of sensory experience

03. Anatomy of a Hoax
– pieci

Daniil Lanovyi says

Blunt. Declarative. A statement of a book. Much needed statement. Most importantly because that book touches and crashes the conviction of some that our beliefs are stable, persistent, even unchangeable. That extremely harmful myth should be long abolished. A mind is the most flexible concept that lives in a state of

continuous change.

Especially in a modern world, with the ever-increasing pace of progress, we should remind ourselves often about the flexibility, a real superpower of our minds. Brilliant improvisers that we are with a sparkling imagination, we ought NOT to be held hostages by bogus beliefs, most of which are not even ours.

To complement your read (or preview it) check Professor Nick Chater's talk at Google: https://www.youtube.com/watch?v=vspX6...

Piotr says

Establishes the most plausible glimpse of the mind model I've read so far.
Reverses the idea of free will by a realisation that the consciousness experiences the world and decision making after-the-fact and only provides explanation.

Daniel says

Chater is is a Professor of Behavioural Science at Warwick Business School and Scientist-in-residence of the BBC The Human Zoo. He makes an outrageous claim: rather than having conscious and unconscious thoughts, our mind is Flat. Our brain constantly interprets sensory perception, trying to make sense of it with past precedence stored inside, to produce a narrative.

This is an astounding claim, considering that from Freud onwards we have been taught that we have an inner self. Kahneman wrote a whole book about our 2 system: the fast reflexive one and slow and insightful one. Chater says that there is no mental depth, no inner self!

He started off with optical illusions. He showed the amazing fact that if we keep staring at an object, parts of it disappear. Instead we see coherent parts of the picture. Our eyes need to keep darting around to make sense of what is happening around us. Our brain can recognise and manipulate coherent images much better than random ones.

Split brain surgery showed that patients’ left and right brain cannot communicate with each other. When images are manipulated so that only the right brain sees an image, the patient interacts with it normally and then the left brain conjures up a seemingly logical explanation of why he had performed the action.

He then showed that we do not have an accurate memory of simple things such as the pattern of stripes of tigers. So we know a tiger is a tiger from the overall impression but not a photographic memory of it.

Even our feelings are not specific. The famous experiment where an attractive female met the male subjects either at a solid bridge or swing bridge showed that the men were more likely to contact her if they were on the swing bridge and thus the body reacted with increase heart rate. Their mind then attributed the reaction as infatuation.

When people were asked to choose a candidate, and then their choice was switched, people were able to still explain why they had chosen the (not chosen) choice!

So our mind sees only the result of the summary interpretation of all our sensory input and previous

experience. This is our consciousness.

He ended with an upbeat assessment of the secret of human intelligence: the ability to find patterns in the least structured, most unexpected, hugely variable of streams of information. This is far beyond the reach of modern artificial intelligence.

I am very impressed by this book!

Alla Vovk says

Good for: rethinking perception if you know little about it

After finishing this book I had an impression that I am living a life of a fictional character in a fictional world. My body is nothing else but a signal processing system, striving cycle by cycle to impose meaning of sensory input. The meaningful interpretations are concsious-yielding a world of patterns, object, colours, voices, world, letters, faces, and more. But this was not new to me. Much of his book echoes with the "no-self" views found in buddhism and philosophers such as David Hume. But Chater's version of this view can often seem like a mere redescription of our ordinary ideas rather than a breakthrough point in understanding. Despite that the book has good references (my favourite part was about Herman von Helmholtz), it was very interesting to read and I believe it is a light version of some parts of The Oxford Companion to the Mind.

A few of the gems herein:

We are always conscious of the results of our interpretation of sensory information, and we are never conscious of the process by which these interpretations are created.

Thus our feelings do not burst unbidden from within-they do not pre-exist at all. Instead, they are our brain's best momentary interpretation of feedback about our current bodily state, in the light of the situation we are in. We 'read' our own bodily states to interpret our own emotions, in much the same way as we read the facial expressions of other people to interpret their emotions.

An emotion is the interpretation of a bodily state. Having an emotion at all is a paradigmatic act of interpretation.
The brain is continually scrambling to link together scraps of sensory information. We 'crete' our perception of an entire visual world from a succession of fragments, picked up one t a time. Yet our conscious experience is merely the output of this remarkable process; we have little or o insight into the relevant sensory inputs or how they are combined.

If we are conscious of one thing at a time, and the brain is a network of 100 billion neurons communicating by streams of electrochemical pulses, we must necessarily be unconscious of almost everything our brain does.

Douglas Greenshields says

This might transpire to be a successful application letter to give TED talks, but it's ultimately disappointingly vapid. It isn't so much that the assertions here, so far as they go, are incorrect - but the writing is boring in the same way atheistic treatises are boring. Everything is "remarkable", everything "turns out" to be the case as a

result of the extrapolation of hand-picked studies. There are so many omissions to the story painted - for one, the writer seems to imagine a homogenous human subject for whom phenomena such as autism do not warrant consideration - and some fundamental self-contradictions - denying the existence of un/subconscious thought while tautologically allowing for its existence. The writer seems to be too in love with his radical nihilism, and there is little capital to be found from his conclusions. The writer at one point discusses metaphor, and even admits that his own pronouncements are themselves metaphor - yet he doesn't allow that line of thinking to take him to an obvious conclusion, which is that he simply isn't allowing the space for metaphor to exist when talking about human thought and the necessary elisions that are made to allow humans a stable sense of identity. It's difficult to imagine this book having been written by a woman, or for that matter any of the laudatory pullquotes that line the book - that is quite telling.

Max Stone says

Overall I very much enjoyed the book.

The basic theme is the subtitle: our brains are experts are stitching things together to create the illusion of more depth of knowledge than there really is, but really there isn't anything roiling beneath the surface; there is just the interpretations that we put on things.

I thought the chapters on perception were particularly strong; there were a lot of studies cited that I felt did a good job of conveying that one understands way less, and sees way less, than one assumes. e.g. that our vision only sees a tiny funnel and we just have the illusion that we are taking in more than that because if we ever consider something outside that tunnel our eyes flick to it incredibly fast and stitch it together with other stuff and give us the impression that we were seeing it all along. but e.g. if you do stuff outside the funnel (like Xing out all the words in a book besides the one a sensor sees your eye pointed at each instant; or that old experiment where people didn't notice a gorilla or a woman with an umbrella walking through a scene when they are busy counting passes of a basketball), there's no perception there and no awareness of the lack of perception.

The chapters that were further away from hard science (like the stuff on emotions) was interesting but didn't seem nearly as well supported to me. And e.g. the experiment he describes in which he demonstrates that the brain is not subconsciously toiling on other tasks while your conscious mind is elsewhere seems pretty wildly extrapolated (roughly people didn't make progress on meaningless task A while they were working on meaningless task B that he assigned them) into proving or at least strongly supporting a big theme.

Emmy Gregory says

Interesting message. Interesting science. Annoyed by how many times each point was repeated though.

Laura Spira says

Tim Harford raved about this book so I had high expectations but I was disappointed.

For a start it's not very well written and rather repetitive (and poorly copy-edited with a clutch of typos). I found the idea that my mind has no depth, and that my brain is constantly hoaxing me that it does, rather

disturbing to start with but as I didn't find the argument entirely convincing my initial epistemological insecurity disappeared.

Chater has amassed a great deal of authoritative looking scientific research to back up his ideas and uses some pictures of visual illusions to drive home his points but I wondered how much research exists that actually contradicts his thesis. He sideswipes Freud in passing but I'd like to know a bit more about whether modern science has really provided evidence that undermines Freudian approaches.

I'm very interested in the use of metaphor and in the course of my own work I've read quite a lot about it so when I got to the last section I perked up. I was ready to be persuaded that the pervasiveness of metaphorical thinking is part of the brain's way of making the horizontal connections that Chater argues belie the notion of hidden depths of the mind, but this section seemed like a short afterthought and could have been helpfully extended to link to "the cycle of thought".

A really good version of this book which demonstrated a more balanced approach to the science might have prompted me to do more more reading around the topic but by the time I'd finished this I was yawning.

Alec Newman says

This book is about how the way our cognition and perception actually work is much different than common sense has led us to believe.

How we tend to think of our perception and cognition: we can see and appreciate our entire visual field at once, in color, in relative detail; we can think in terms of abstract concepts; we can be aware of multiple things at once, and multitask; we can introspect how we arrived at an answer, or the motivations and belief systems behind our actions; we can imagine things in vivid detail. Our logical, self-consistent conscious mind straddles and is constantly feuding with an emotional unconscious mind with deep-seated values that sometimes gets the best of us.

However, by looking at a series of interesting and clever experiments in behavioral psychology over the decades, we can see that many of these conceptions are inaccurate. We can only consciously perceive a single object, thought, or perception at once. Outside of a narrow range of vision, we're effectively colorblind. When we reflect on how and why we arrived at an answer, decision, or action, it seems that our minds tend to just improvise a reason on the spot that makes our behavior seem consistent with the rest of our worldview. Our mind infers our emotional state from how our body feels, and our social context, rather than our emotional state causing our body to feel a certain way.

It turns out there really isn't an unconscious mind doing background processing, or a hidden psyche. It's just how it often feels. Perhaps we think that way because it helps maintain the illusion that "we" are logical and have the best intentions; it's the unconscious boogie monster that we can blame for poor decision making, irrationality, and emotions. In truth though, it's just that mind is inherently inconsistent. In order to get by in this complex world, our mind needs to be able to hold contradictions and ambiguities, and do its best to work around them.

Indeed, as opposed to a deeper unconscious mind that occasionally bursts emotions or images into our conscious mind, the brain operates in distinct "cycles." In a given cycle, the brain evaluates its sensory environment, pattern matches with its memories in an attempt to find coherent meaning, and produces a

single conscious result, which is often a simple visual impression or verbal thought, and which is then filed away for future cycles. And the process repeats forever. The process of thinking and perception is one-to-one with the conscious perception of its results.

In the same way that humans are not born with an intuitive understanding of their biochemistry or how their liver works, it seems we don't even have an intuitive understanding of how our own brain works. And why should we? We can survive and reproduce without it. But like the Buddhists say, ignorance of our own minds inevitably leads to suffering. By understanding our minds we can help ourselves better, in the same way understanding our bodies allows us to perform medicine.

I found the perspectives in the book freeing, to know that having a thought or feeling doesn't necessarily point to something deeper about my "self." Now I'm more convinced that conscious chatter is just my mind trying to make sense of my body and environment. If I feel an emotion like sadness, nervousness, or anger, I can just ask myself, "what am I feeling or seeing that makes me think I feel this way?" It gives me more confidence that we can change and completely re-evaluate our values and beliefs if need be. There's probably very few deep-set values or aspects of ourselves we can't change through practice and repetition.

I have some other practical takeaways from the book. It's more clear just how draining distractions and multitasking is. Since I only have one channel of thought, wasting any cycles on distractions can be a big deal, if I'm trying to focus. I also know that I can't expect any subconscious processing on tasks. The reason breaks can help us think is just by discarding dead-end thought loops. To make progress on a problem, you still need to spend cycles on it.

The cognitive process in the book is also relevant for creative pursuits. In programming, sometimes I get the impression that I'm able to hold the entire program or concept in my head. But no matter how clear it is, often I'll end up realizing how many details I've overlooked, and it takes much longer to implement than I think. My visual field seems detailed and continuous just because at any given moment I can, with a glance, instantly observe any part of it. While my perception moment-to-moment itself is very narrow, being able to perceive any part of my visual field at will, combined with my working memory, gives the impression of continuity and wholeness. Similarly with a program, until I actually write it out, and am able to instantly observe details I've already laid out, can I be more confident I can work on it as a whole. My mind is not, just in its imagination, able to create an entirely self-consistent work; I need a physical external reference. This also impresses upon me the importance of being able to quickly and effortlessly retrieve information, and fast feedback loops.
