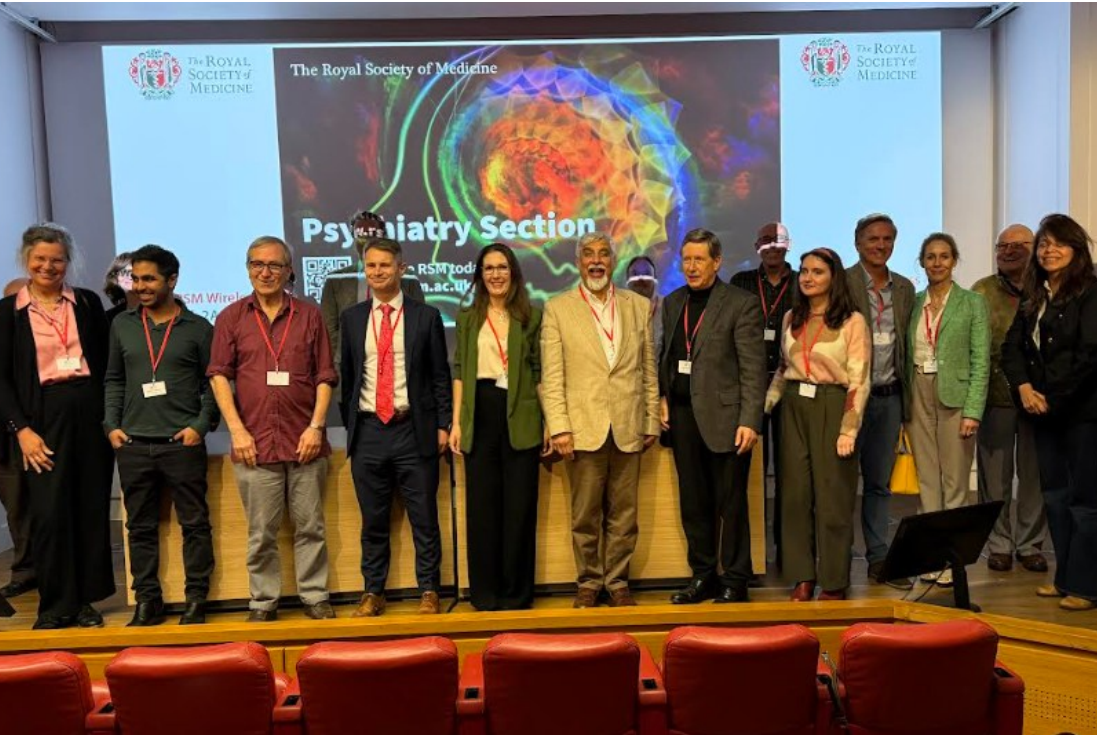




Evolutionary Psychiatry Special Interest Group (EPSIG)



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Notes from the Editor

The year is now over halfway through, and we are still charging ahead in terms of evolutionary thought, reading, writing, setting up and promoting evolutionary events. We had a fantastic meeting at the RSM. Speakers were Prof Christopher Stringer, Prof Robin Dunbar, Prof Samir Okasha, Dr Gilian Pepper, Dr Riadh Abed, Dr Nikhil Chaudhary and Dr Annie Swanepoel. The human story is so fascinating. Costa will give his reflections below.

The Charles Darwin essay prize is now in full swing, I hope we have lots of entrants (see details on page 5).

One thing did strike me in particular from the RSM event was that Professor Okasha mentioned that defining the function (For evolutionary purposes) of most organs of the body was relatively straightforward but doing that for the human brain is much more complex. Perhaps one essay topic could be an exploration of that?

I put a few thoughts down. Ultimately the human brain is the control centre of the human body. To neurologists, it might be viewed as the head ganglion of the nervous system perhaps, sensory/motor/autonomic functions etc, but to psychiatrists it might be described as the organ or our access to reality and processing what to do in the light of the past, the seat of our mind?

As such It performs a wide range of vital functions, which can be grouped into the following categories:

Continued on page 2

Notes from editor (cont.)

(Cont. from page 1)

1. Control of Bodily Functions

a) Autonomic functions: The brain regulates involuntary processes like heartbeat, breathing, digestion, and blood pressure through the brainstem and hypothalamus.

b) Motor control: It initiates and coordinates voluntary movements through the motor cortex and cerebellum.

2. Sensory Processing

a) The brain receives and interprets sensory input (sight, sound, touch, taste, smell) from the body through the thalamus and sensory cortex, allowing us to perceive the world.

3. Cognition and Thinking, It supports higher-order functions such as: Thinking, Memory, Decision-making, Problem-solving, Planning. These processes occur mainly in the cerebral cortex, especially the prefrontal cortex.

4. Emotion and Behaviour

The brain regulates emotions, mood, and motivation through structures like the amygdala, hippocampus, and limbic system. It helps form and regulate social behaviour and personality, so important in psychiatry

5. Language and Communication

Our brain enables us to understand and produce language via specialized areas like Broca's area (speech production) and Wernicke's area (language comprehension).

6. Learning and Memory

The brain stores, processes, and retrieves information. The hippocampus is especially important for forming new memories.

In essence, the human brain is responsible for what and how we perceive, think, feel, and behave. It's what makes us conscious, self-aware, and capable of complex thought and creativity. It

can also become dysfunctional in a wide variety of ways. Why and how is what we do. More exactly our brain is set up to be particularly social. This has advantages that are worth discussing. However it also has vulnerabilities such as:

1. Social Manipulation and Deception

Vulnerability: The human brain is finely tuned to detect and respond to social cues—both verbal and non-verbal. This makes us vulnerable to manipulation, deception, and social exploitation.

Why: As humans evolved in highly social environments, our brains became highly attuned to others' intentions, emotions, and behaviors. This sensitivity is adaptive for cooperation, but it also means we're vulnerable to being deceived or manipulated by those with malicious intent (e.g., in politics, business, or relationships).

Example: People with sociopathic tendencies or those who can

2. Social Comparison and Status Anxiety

Vulnerability: Our desire for social status, acceptance, and approval can lead to anxiety, depression, and other mental health issues.

Why: In evolutionary terms, individuals with higher status had better access to resources, mates, and protection. Our brains are wired to constantly evaluate our status relative to others, which can lead to excessive worry about fitting in, feeling inferior, or being excluded.

Example: The rise of social media exacerbates this vulnerability, where constant comparison to curated, idealized versions of others' lives can lead to anxiety, depression, and diminished self-worth.

3. Tribalism and In-Group Bias

Vulnerability: Our brains tend to favor those who are similar to us (in-group) while being suspicious of outsiders (out-group). This tribalism can fuel prejudice, racism, and conflict.

Notes from editor (cont.)

Why: In early human history, it was advantageous to stick with the group for survival—whether for hunting, gathering, or defending territory. Trusting in-group members increased cooperation and survival chances, but suspicion of outsiders could protect against potential threats.

Example: Modern forms of tribalism manifest as political polarization, ethnic conflicts, and social divisions, which can limit empathy and cooperation across groups.

4. Over-attachment to Social Bonds

Vulnerability: Our brains are wired to form deep emotional attachments to individuals and groups, which can lead to unhealthy dependence or attachment.

Why: In evolutionary terms, strong social bonds were essential for survival—whether for child-rearing, protection, or resource sharing. However, when these bonds are too strong or toxic (e.g., abusive relationships or unhealthy group dynamics), they can harm individuals.

Example: Codependency, abusive relationships, and cult-like group behaviors are extreme manifestations of this vulnerability.

5. Cognitive Overload from Social Information

Vulnerability: The human brain evolved to manage complex social interactions, but there is a limit to how much social information it can handle. This can lead to mental fatigue, decision paralysis, and even burnout.

Why: As social creatures, we need to constantly monitor relationships, detect threats, and cooperate, which requires a lot of cognitive energy. In modern society, we're exposed to an overwhelming amount of social information, from face-to-face interactions to digital media.

Example: The constant bombardment of news, notifications, and social media updates can over-

whelm our brain's capacity to process and respond effectively, leading to stress and disengagement.

6. Exploitation of Empathy

Vulnerability: Our ability to empathize deeply with others can sometimes lead to us being overly altruistic, which can be exploited by others.

Why: Evolution favored individuals who could connect emotionally with others and offer support, fostering cooperation. However, excessive empathy or compassion can lead to resource depletion or personal harm, especially when others take advantage of it.

Example: People who are overly empathetic may find themselves in toxic situations where they give more than they receive, or they may be taken advantage of by those who know how to play on their emotions.

7. Over-activation of the Social Brain

Vulnerability: In the modern world, the brain's social processing systems are often activated in ways that are unhelpful or damaging.

Why: Our brains evolved for relatively small, tight-knit groups where social dynamics were more predictable. However, in large-scale societies with complex networks and constant social feedback, these circuits can be overused, leading to problems like social anxiety, paranoia, or overthinking.

Example: The constant availability of social media exposes individuals to social feedback on a near-constant basis, which can overload the brain's natural social processing mechanisms.

8. Increased Risk of Groupthink

Vulnerability: While group cohesion is critical for success, it can also encourage groupthink—a tendency to prioritize consensus over critical thinking and dissenting opinions.

Notes from editor (cont.)

Why: Humans have evolved to work in groups where cooperation and harmony were essential for survival. This instinct to align with the group can stifle individuality and creativity.

Example: In organizational settings, political parties, or even in religious or cultural movements, groupthink can lead to poor decision-making and the suppression of alternative viewpoints.

9. Vulnerability to "Echo Chambers"

Vulnerability: Our social brains are highly influenced by those around us, making it easy to fall into "echo chambers" or filter bubbles, where we only hear ideas that reinforce our existing beliefs.

Why: Humans are highly social and tend to conform to the opinions and behaviors of others in their group. This conformity helped maintain group unity and survival but can also reinforce biases and limit critical thinking.

Example: The rise of social media algorithms that tailor content to reinforce user biases is a modern manifestation of this vulnerability.

10. Over-reliance on Social Validation

Vulnerability: The need for external validation from others can lead to unstable self-esteem and self-worth.

Why: The social brain is highly attuned to receiving feedback from others, which historically helped ensure social acceptance. But in a world with constant peer feedback, people can become overly reliant on external validation.

Example: People who derive their sense of self-worth primarily from social media "likes" or public approval may experience severe emotional distress when they don't receive the attention they crave.

So, what are the pros and cons of having a brain and in particular, such a large, energetically expensive organ? How did we get there? Why has evolution left us so vulnerable to mental disorders? Why has natural selection not eliminated these vulnerabilities? Plenty of scope for discussion in an essay looking at phylogeny and function.

Good luck!

Upcoming Evolutionary and EPSIG Meetings

1. The Evolutionary Psychiatry Debate 2025 NOW IN CAMBRIDGE

Date: Sunday 31st August 2025

Start: start-time will be 10:15am, finish by 5pm

Location: Henry Wellcome Building, Cambridge

Queries: contact at evolutionandmentalhealth@gmail.com

The Evolutionary Psychiatry Debate Day, on August 31st at the University of Cambridge, and organised via the newly established Foundation for Evolution and Mental Health (<https://www.femh.uk/>), will be this summer's primary opportunity for both newcomers and those with longstanding interest in the field to meet, discuss critical ideas, and be exposed to debates of central importance to evolutionary psychiatry.



The two motions up for debate are:

'Most Depression is a Functional Signal' and 'The Future of Evolutionary Psychiatry is in Theory and Explanation, Not Clinical Application'.

Attending as front-of-house debaters are Professor Leif Kennair, Dr. James Turner, Dr. Adam Hunt, and others with a range of expertise in evolutionary psychiatry.

There will also be EdTech-enabled audience participation for those who are interested in contributing to the discussion, as well as plenty of breaks for coffee, snacks, chit-chat, and a pizza lunch delivered from Aromi, the best Italian restaurant in Cambridge!

At a later date, we will also be organising an optional dinner for attendees who would like to stay on and spend more time with the speakers.

2. The EPSIG AGM is on Friday 12 Sep (2025) 2pm via zoom. All members are welcome.

Simply copy and paste the link below in your browser to register.

EPSIG AGM

12 September 2025, 2:00PM - 3:30PM

Online Via Zoom

Members of the Evolutionary Psychiatry Special Interest Group are warmly invited to join our online AGM, taking place on Friday 12 September 2025, 2:00pm - 3:30pm, via Zoom. Come and hear how you can join us in reaching our EPSIG goals.

https://email.rcpsych.ac.uk/cr/AQjj1gsQmLq0ARjBj0429O9Rjk_15RmiLmlHGI01In6ojK7eAkRsEzUJxE5fKQ

Upcoming Evolutionary and EPSIG Meetings (cont.)

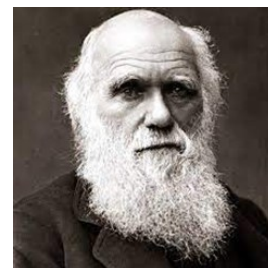
3. Our annual conference which will ONLINE, on Friday November 21st, 2025, Details below.

Time	Session
9.30am	Welcome Dr Riadh Abed, Chair, Evolutionary Psychiatry Special Interest Group
	Plenary 1 Chair
9.30am	Why evolutionary science is helpful for psychiatry trainees Dr Gurjot Brar
10.15am	Evolution Professor Dan Stein
11.00am	Break
	Plenary 2 Chair
11.30am	Dr Giada Cordoni
12.15pm	Lunch
	Plenary 3 Chair
1.15pm	Clinical applications of evolutionary psychiatry and the GOAL model Dr Alfonso Troisi
2.00pm	Deniz Gul Salali
2.45pm	Break
	Plenary 4 Chair
3.15pm	Professor Jerome Wakefield
4.00pm	Q&A
4.45pm	Close of conference

4. We are also looking to set a date for next years trainee event in the first half of 2026; date to be announced

5. Stay tuned for an upcoming collaboration with the Evolutionary Psychiatry group of Turkey!

Charles Darwin RCPsych EPSIG Prize 2025



Do you want to be invited to speak at an international conference?

If you are a Psychiatry core or specialty trainee in the UK, you are eligible to apply, and two of the winners will be invited to speak for 10 minutes each at the EPSIG International Symposium on 22nd November 2025. Medical students, foundation doctors and staff grade doctors are also eligible to apply in their own categories with the prizes as below:

What you can win:

- A. Invitation to give a 10-min oral presentation at the EPSIG International conference held virtually on 21st November 2025 for the psychiatry core and specialty trainee winners only.
- B. £100 pound prize money for the winner each of five categories (medical student, foundation doctor, core trainee, specialty trainee, staff-grade doctor)
- C. Certificate for the runner-up in each of the above five categories
- D. Winners and runners-up have their essay printed in the EPSIG Newsletter that is distributed to all EPSIG members (currently around 3000 psychiatrists and other professionals worldwide)

What you need to do:

Write a 1500 to 2000-word essay (excluding references) relevant to Evolutionary Psychiatry. The essay should be supported by a review of relevant literature and should be your own work.

The title is: *“How an evolutionary perspective can improve our understanding of ... (pick any one psychiatric condition)”*.

You may want to visit the EPSIG [YouTube channel](https://www.youtube.com/epsiguk) at Youtube.com/EPSIGUK, listen to the 'Evolving Psychiatry' podcast (on [all major platforms](#)), or read our published newsletters at [epsig.org](https://www.epsig.org) for inspiration and information.

Email your submission to sigs@rcpsych.ac.uk with “Entry for EPSIG Essay prize” as title by 1st September 2025.

What we will do:

Entries will be judged by a panel of three EPSIG Executive Committee members. Criteria for judging will include: clarity of expression, understanding of the evolutionary literature and evidence, critical thinking and the overall ability to convey enthusiasm and originality.

RSM Evolutionary Psychiatry Conference 2025 - Report

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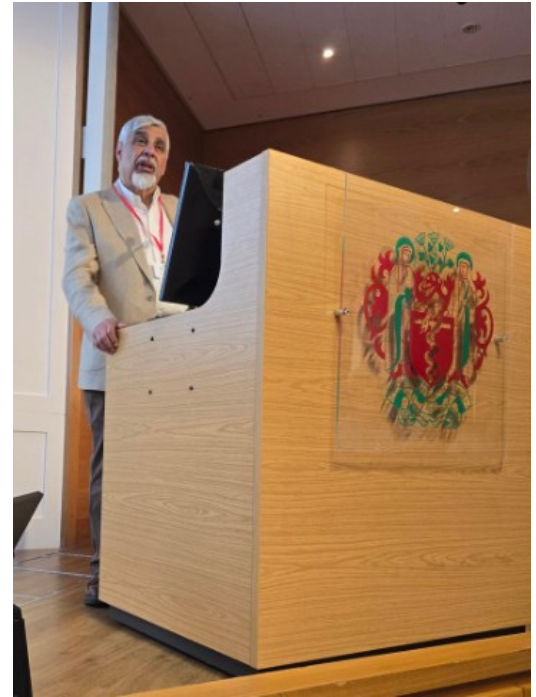
Why Evolution Matters for Psychiatry

A report from the Royal Society of Medicine Conference, June 2025

On 9th June 2025, the Royal Society of Medicine hosted a major one-day conference titled *Why Does Evolution Matter for Psychiatry, Psychology and Medicine?* Organised by Professor Derek Tracy and Dr Riadh Abed, the event brought together an impressive roster of speakers across psychiatry, evolutionary biology, anthropology, and philosophy to ask a simple but unsettling question: what are we missing if we ignore evolution in our clinical work?

The day began with a lucid overview from Dr Riadh Abed (pictured), who offered a compelling introduction to evolutionary psychiatry. After noting some of the limitations of mainstream psychiatry, such as its preoccupation with proximate mechanisms, lack of a coherent model of normality, and vulnerability to reductionism, Dr Abed laid out the conceptual scaffolding of evolutionary thought in psychiatry. This included Tinbergen's four questions (mechanism, development, function, and phylogeny), the concept of mismatch, and his proposed *evo-biopsychosocial model*: an enrichment of the conventional biopsychosocial approach with evolutionary reasoning at its core. He also touched on his own "sexual competition hypothesis" of eating disorders, highlighting the potential of evolutionary models to make specific, testable predictions. As ever, Dr Abed reminded us that evolutionary psychiatry is not a rival paradigm, but a meta-framework, capable of uniting disparate strands into a more coherent, explanatory whole.

Professor Robin Dunbar followed with a tour de force on friendship, something perhaps too often relegated to the 'nice-to-have' end of the psychi-



-atric spectrum. Drawing on decades of empirical work, Prof Dunbar showed how social bonds are not just psychologically enriching but physiologically protective. A meta-analysis by Holt-Lunstad et al. (2010) showed that the quality of one's friendship network was the strongest predictor of post-myocardial-infarction survival, outperforming smoking cessation, diet, and exercise. Friendship, Prof Dunbar argued, is not a luxury but a biological necessity.

He went on to explain the cognitive constraints on sociality, revisiting "Dunbar's number" (approximately 150), which appears to define the outer edge of our stable social groups—across hunter-gatherer societies, medieval villages, and even wedding guest lists. Friendships are time-consuming and reciprocal; too many dilute their benefits. His "social brain hypothesis" postulates that the evolutionary expansion of the neocortex in primates was largely driven by the demands of social cognition. Laughter, grooming, and shared rituals all act via endorphin release, reinforcing the emotional glue of group cohesion. In other words, a well-regulated social life is as biologically grounded as the immune response.

Philosopher of science Professor Samir Okasha followed with a more abstract but no less important contribution, posing the central question:

RSM Evolutionary Psychiatry Conference 2025 - Report

Does evolution matter for psychiatry and medicine? His answer was a firm yes, offered across four fronts:

1. **Ultimate causation complements proximate mechanisms** (as in Darwinian medicine);
2. **Evolution occurs within organisms**, such as immune responses;
3. **It helps naturalise the concept of disease**, crucial in a field like psychiatry, where normality looms large;
4. **It accommodates cultural evolution**, allowing psychiatry to reach beyond biology without losing scientific traction.

His remarks were a timely reminder that evolutionary reasoning isn't just scientifically illuminating—it's philosophically clarifying. One could add a fifth advantage: evolutionary thinking is highly *consilient*, knitting together evidence from across biology, anthropology, and psychology in a way few other frameworks can.

After lunch, Professor Chris Stringer took us back into deep time with a presentation titled *Neanderthals and Us*. He reviewed current evidence on hominin divergence, noting that *Homo sapiens* and *Homo neanderthalensis* likely split from a common ancestor around 600,000 years ago (though this remains contested). Prof Stringer described how anatomically modern humans likely left Africa around 60,000 years ago in small numbers (perhaps fewer than a thousand) and entered Europe, encountering (and interbreeding with) Neanderthals, whose disappearance around 40,000 years ago remains an open question. Today, we are ten times closer to Neanderthals genetically than to bonobos. The psychological and physiological implications of this admixture are only just beginning to be explored, but the point stood: our evolutionary story is messier, and more intertwined, than once thought.

In the afternoon, Dr Annie Swanepoel and Dr Nikhil Chaudhary discussed evolutionary perspectives on child and perinatal psychiatry, particularly the mismatch between contemporary child-

rearing practices and ancestral environments. WEIRD societies (Western, Educated, Industrialised, Rich, and Democratic) are increasingly out of sync with the developmental context in which our species evolved. Drs Swanepoel and Chaudhary highlighted striking contrasts between modern parenting and hunter-gatherer child-rearing, from lower levels of physical touch to age-segregated play. These mismatches may help explain the rising prevalence of conditions like ADHD and post-natal depression. This talk reinforced a central and compelling thesis: that pathology may often lie in the *fit* between person and environment.

The final talk of the day was delivered by Dr Gillian Pepper, who presented her work on the *Uncontrollable Mortality Risk Hypothesis*. This elegant theory suggests that when people perceive mortality risks as uncontrollable (due to violence, poverty, or chronic instability, for example), they are more likely to adopt present-orientated behaviours, reduced future planning, earlier reproduction, and in some contexts, higher impulsivity and health risk behaviours. Importantly, these strategies are not irrational, but evolutionarily coherent. When the future is uncertain, investing in it becomes a losing bet. The public health implications are profound: we must shape environments, not just individuals.

Final Thoughts

If there was a single theme that unified the day's contributions, it was this: evolution offers psychiatry a richer vocabulary and a deeper grammar. It reminds us that our patients are not broken machines, but biological organisms embedded in mismatched contexts, executing evolved strategies—sometimes adaptively, sometimes not.

Far from being a niche curiosity, evolutionary thinking has the power to reframe the central questions of mental health. As Dr Abed noted in his opening remarks, we may not yet have all the answers—but we are beginning, at last, to ask the right kinds of questions.

July, 2025