



## Evolutionary Psychiatry (EPSiG)

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#### Notes from the editor

I hope all our members like our new EPSIG logo. As you can see it is a combination of a brain, a psi and Darwin. I hope it strengthens our identity and brand in a positive way. This newly established college “Evolutionary Psychiatry” special interest group (EPSiG.) has become active in trying to raise the profile of evolutionary thinking among members of the college and others in related disciplines. We will continue to raise the importance of the evolutionary approach to both the theory and practice of psychiatry and also for future research.

In this quarter’s newsletter we have two book reviews one by Annie Swanepoel and the other by Riadh Abed. I hope they encourage those who have not read these books to consider their value. All of which reminds me; there was a minor error in the reference for Annie Swanepoel’s article in the last newsletter. It should have read BJPsych Advances:- How evolution can help us understand child development and behaviour by Annie Swanepoel, Daniela F. Sieff, Graham Music, John Launer, Michael Reiss, Bernadette Wren

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# Evolutionary Special Interest Group of the Royal College of Psychiatrists

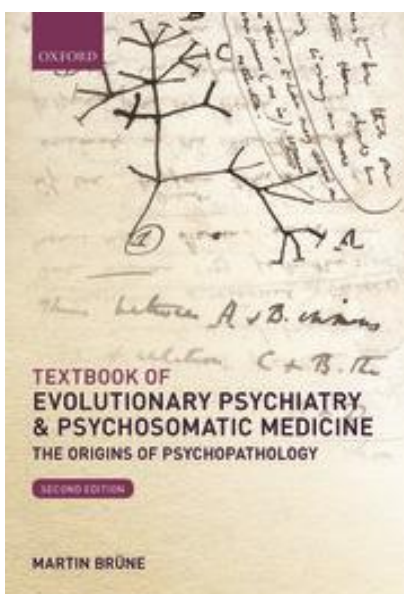
## Here is the Summary

*The traditional disease model, still dominant in psychiatry, is less than ideal for making sense of psychological issues such as the effects of early childhood experiences on development. We argue that a model based on evolutionary thinking can deepen understanding and aid clinical practice by showing how behaviours, bodily responses and psychological beliefs tend to develop for 'adaptive' reasons, even when these ways of being might on first appearance seem pathological. Such understanding has implications for treatment. It also challenges the genetic determinist model, by showing that developmental pathways have evolved to be responsive to the physical and social environment in which the individual matures. Thought can now be given to how biological or psychological treatments – and changing a child's environment – can foster well-being. Evolutionary thinking has major implications for how we think about psychopathology and for targeting the optimum sites, levels and timings for interventions.*

There is also below, an interesting interview with Professor Paul Gilbert who is a British clinical psychologist. He is a Fellow of the British Psychological Society and has written, taught and researched extensively in the areas of mood disorders and shame. He is the founder of compassion focused therapy (CFT) and, compassionate mind training (CMT). He is the author of *The Compassionate Mind: A New Approach to Life's Challenges* and *Overcoming Depression*. He was awarded the OBE for contributions to mental health. Before retirement Gilbert was head of the Mental Health Research Unit, Derbyshire Healthcare NHS Foundation Trust. Professor Gilbert is a strong supporter of EPSIG and we look forward to his participation in our future symposia/conferences.

We are also pleased to announce that both Robin Dunbar and Simon Baron-Cohen are giving talks at the First Evolutionary SIG symposium. At the moment we have a room booked at the college for only 50 so I personally am optimistically worried we might be too successful!

Thanks to those who had the initiative to ask (and get) such fantastic speakers; you know who you are!?



So! Onto our first review; the Textbook we covered in our last letter.

### **Book Review: TEXTBOOK OF EVOLUTIONARY PSYCHIATRY & PSYCHOSOMATIC MEDICINE**

The Origins of Psychopathology

Second Edition, 2016, Oxford University Press

Martin Brüne

The scope of this book is impressive. It starts off with chapters reviewing evolutionary theory, genetics and brain anatomy and function. Human life history, causes of

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psychopathology and psychiatric assessment are also discussed, before the author launches into reviewing each category of disorders as listed in the DSM-5. He ends with a discussion of psychotherapy and medication.

This book does more than its title suggests. Far from focusing only on the evolutionary aspects of psychiatric diagnoses, it also offers succinct and relevant findings on each of the disorders. As such, it is highly recommended for providing a brief up-to-date overview of the whole spectrum of Psychiatry.

In Germany, where the author resides, “Psychiatry and Psychosomatic Medicine” is a combination of the specialties we in the UK would call, “Adult Psychiatry” and “Liaison Psychiatry”. I was particularly impressed by the chapter “Somatic symptoms and related disorders”, which in my view, has the most to teach professionals in the UK. Brüne explains how an individual who is ill and needs help, is a liability for the group, as it costs others time and resources to give support. “Reciprocal altruism” is altruism between genetically unrelated individuals – this can only persist if altruistic behaviours are reciprocated and if mechanisms exist that detect non-cooperative behavior (“cheating”). In order to prevent freeloaders from exploiting the goodwill of others, it is important to recognize when individuals are not really ill and are just exaggerating their symptoms for personal gain. This has led to the selection of those individuals who are most convincing of their need for support – i.e. those who do not know themselves that they are not in true need – as those who have deceived themselves find it much easier to convince others. Self-deception or what we would call in Psychiatry “denial” or “lack of insight” is common in psychosomatic disorders and can be infuriating to deal with. I found this chapter very helpful, as it enabled me to understand that people with psychosomatic disorders truly believe that they are ill and cannot afford to accept that this may not be the case, as it would shift them from the category of “help-needing” to “taking advantage of others’ goodwill”. This cognitive dissonance prevents them from getting better and this is what needs to be circumvented in trying to help. Perhaps that is why moving people slowly towards a path of recovery, while providing social support independent of physical symptoms, may provide the best outcome.

As a Child and Adolescent Psychiatrist, I also found the chapter on “Suicidal and Self-injurious behavior” enlightening. Brüne explains how parents invest a lot of time and resources into raising children. “Inclusive fitness theory” suggests that an individual’s fitness is the sum of the individual’s own reproductive success and the reproductive success of genetically related individuals. Perhaps this is why the strongest distress signal a child can give their parents is to self-harm or threaten suicide. Deliberate self-harm may be a high-risk strategy to increase parental commitment and investment. This can appear to be “attention-seeking”, whereas it may well be “attention-needing” instead. I have found in my clinical practice that providing individual therapy to these patients, may help in the short term, but in the longer term may lock them into a “patient role”, in which they escalate their behavior every time they are about to be discharged. Brüne has helped me think that we should focus on family work more and consider referrals to Children’s Services where parents are unable or unwilling to engage.

I have highlighted the above two insights which struck me from this book – however, I am sure that all psychiatrists would benefit from reading this book and that there are many more pearls to be discovered. I recommend this book highly – not just for the evolutionary insights it provides, but also for the sensitive and thoughtful approach the author brings to it. He concludes by explaining that modern psychiatry runs the risk of leaving out important contextual factors and may then not recognize that the very same behaviour that may be dysfunctional and harmful to the individual in their current environment (e.g. not trusting

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anyone), may have been functional and beneficial in a more hostile past environment (e.g. not trusting abusive parents). Brüne ends by stating that appreciating those environmental conditions to which humans have primarily adapted may greatly enrich understanding and enrich treatment options. I could not agree more.

*Annie Swanepoel Consultant Child and Adolescent Psychiatrist HPFT*

As a number of terms used in this newsletter may be unfamiliar or only remembered from a distant past, I have added some descriptions of “Evolutionary Terms” used in Evolutionary psychiatry. I hope this will clarify the discussions (Ed. PSS).

### **Some useful terms in Evolutionary Psychiatry.**

What is **reciprocal altruism**? In evolutionary psychiatry, reciprocal altruism is a behaviour whereby someone acts in a manner that temporarily reduces their (Darwinian) fitness while increasing another person’s fitness, with the expectation that the other person will act in a similar manner at a later time. The concept was initially developed by Robert Trivers to explain the evolution of cooperation as instances of mutually altruistic acts. The concept is close to the strategy of “tit for tat” used in game theory. Trivers coined the term ‘reciprocal altruism’ to describe a process that favours costly cooperation among reciprocating partners. In principle, altruism apparently confounds the basic logic of evolution by natural selection, because individuals incur fitness costs while providing benefits to others. Altruistic traits can evolve only when some cue allows altruists to direct benefits selectively to other altruists, and thereby increase the relative fitness of altruists. Three types of cues provide a basis for such assortment: recent common descent, proximity in close and almost unchanging populations, and memory of previous behaviour (Especially the ability to bear a grudge against cheats!). The first two types of cues are the foundation of kin selection, and the last cue is the basis of reciprocal altruism. The past behaviour of other individuals provides a cue about whether they may carry genetic alleles that lead to altruistic behaviour. Altruism can be favoured if recipients restrict help to those from whom they receive help, in other words, I’ll scratch your back if (and only if) you’ll scratch mine. (Ed. PSS).

**Inclusive fitness:** In evolutionary biology inclusive fitness theory is a model for the evolution of social behaviours (traits), first set forward by W. D. Hamilton in 1963 and 1964. Instead of a trait's frequency increase being thought of only via its average effects on an organism's direct reproduction, Hamilton argued that its average effects on indirect reproduction, via identical copies of the trait in other individuals, also need to be taken into account. Hamilton's theory, alongside reciprocal altruism, is considered one of the two primary mechanisms for the evolution of social behaviours in natural species.

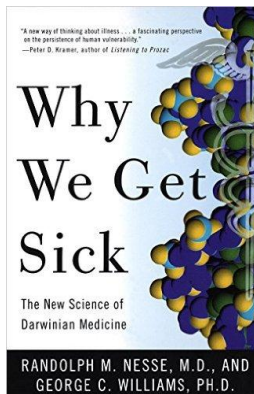
From the Dawkins’s idea of the “gene's point of view”, evolutionary success ultimately depends on leaving behind the maximum number of copies of itself in the population. It was previously accepted that genes only achieved this by causing the individual to leave the maximum number of viable direct offspring. However he showed mathematically that, because other members of a population may share identical genes, a gene can also increase its evolutionary success by indirectly promoting the reproduction and increasing the survival of some of these individuals. The most striking example of such individuals is close genetic relatives. In these circumstances the application of inclusive fitness theory is often more straightforwardly treated via the narrower kin selection theory. Inclusive fitness theory maintains that someone may improve their overall genetic success by altruistic social behaviour (Hamilton 1964).

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We now consider what is commonly regarded as one of the foundational books of Darwinian medical thinking by Professor Randolph Nesse. If you get a chance to hear him lecture it is a delight. Below is Riadh Abed's review of his now classic book on Darwinian medicine. (Ed. PSS).

### **Book Review: 'Why We Get Sick' Revisited**

**Riadh Abed**



It's been more than 2 decades since the publication of 'Why We Get Sick' (Nesse, R & Williams, G, 1994). Fortunately the book remains on the market in paperback form. I originally read the book in the mid-nineties and it had a formative influence on my thinking about medicine and psychiatry. The book is around 250 pages and is written largely in non-technical language thus making it accessible to the general public. However, it is equally useful to medics and evolutionary scientists of all levels.

Although the authors are not the first to apply the principles of evolutionary science to medicine, their work has served to give this new field its name: 'Darwinian Medicine' and this was later used synonymously with 'Evolutionary Medicine'. Randolph Nesse and George Williams had published an article three years before (Williams & Nesse, 1991) in the Quarterly Review of Biology and this together with the book set in motion a series of conferences, books and research programs. However, it is sad to see that so far as mainstream medicine is concerned, the book's central message, which is that the human vulnerability to disease and disorder can only be fully understood when examined through the lens of evolution, remains unheeded. Therefore, most medical students as well as experienced clinicians will find models and facts about human health and disease in this book that they were neither taught during their undergraduate and postgraduate training nor part of their current CPD/CME program. And interestingly, most doctors remain unaware of the importance of the evolutionary perspective and also unaware of the need to address this important gap in their knowledge.

Therefore, many doctors will be unfamiliar with the concept of an ongoing arms race between humans and pathogens or with the fact that antibiotic resistance is in fact evolution by natural selection being witnessed in real time and even predates the "Antibiotic era" by millennia. Similarly, the chapter on the evolutionary roots of aging and the theories suggesting that antagonistic pleiotropy may have a role in the causation of senescence will come as a surprise to many clinicians. The same can be said for the chapters on allergy, cancer and the diseases of civilization where there is a detailed explanation of how mismatch can play a major role in the causation of such disorders. The mismatch can relate to the nature of our modern diets, lack of exercise, experiencing a drastic reduction in the parasite load, living in densely populated settlements and living abnormally long lives.

Certainly, the concept of cancer cells being somatic cells that place their own selfish interest above that of the rest of the body will also be a novel idea to many.

Why will this still be surprising to clinicians even after 20 years of the publication of this book as well as numerous articles on evolution and medicine? The answer is that current mainstream medicine insists on focusing on proximate causes and rejects as a matter of principle the consideration of evolutionary or ultimate causation. Hence, it follows that

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research will uncover the biochemical and pathophysiological mechanisms involved in senescence, cancer or other genetic disorders but will insist on discarding questions about why genes or traits that underlie such disorders were selected in the first place.

The penultimate chapter deals with psychiatric disorders and is provocatively titled 'Are Mental Disorders Diseases?', which I'm guessing will surprise or even shock some, if not the majority of psychiatrists. Since we have been drilled to think in terms of ICD-10 and DSM-5 and disease categories, to be presented with a challenge to what has become a core assumption of modern psychiatry can be unsettling. Also, it will come as a surprise to those psychiatrists who have wrongly assumed that evolutionary psychiatry is no more than a narrow biological and medicalised view of mental disorder. The chapter introduces Nesse's model of the smoke detector principle for anxiety and the idea of differentiating between defences and diseases whereby emotions such as anxiety and depression have evolved to serve as defences akin to cough, fever and diarrhoea. Interestingly, the authors note that psychiatrists lack even the most rudimentary theory about the function of human emotions and the current diagnostic systems encourage practitioners to ignore context in their diagnostic evaluation of emotional disorders. Alas, more than 20 years later things are no different and in many ways they have become worse in that the DSM-5 has removed the exception made for bereavement for the diagnosis of depression so that it is now possible (at least in theory) to diagnose major depression in a grieving person after only 2 weeks of symptoms.

In summary, if you haven't read this book I would recommend it to both trainees and consultants and if you have read it, it will do you no harm to re-read it. I thoroughly enjoyed it the second time round. (Ed. RA).

### **Some more useful terms in Evolutionary Psychiatry.**

**Antagonistic pleiotropy** is an effect whereby genes may change in respect of their fitness advantages, over time and in different environments. The antagonistic pleiotropy hypothesis was first proposed by George C. Williams in 1957 as an evolutionary explanation for senescence. Pleiotropy is the primary phenomenon whereupon one gene controls for more than one phenotypic trait in an organism. Antagonistic pleiotropy is when one gene controls for more than one trait where at least one of these traits is beneficial to the organism's fitness and at least one overall is detrimental to the organism's fitness. The crucial aspect of William's idea about antagonistic pleiotropy was that if a gene caused both increased reproduction in early life and aging in later life, then senescence would be adaptive in evolution. As a constraint, antagonistic pleiotropy is given as one of the reasons how evolutionary biologists explain why organisms are unable to reach perfection through natural selection. Antagonistically pleiotropic genes are therefore one explanation for fitness trade-offs. (Ed. PSS).

**Mismatch** is a theory that organisms possess traits (including behavioural, emotional, and biological) that have been passed down through generations, preserved by natural selection because of their adaptive function within a given environment. However, the given environment of the evolutionary period can be quite unlike the current environment. Therefore, traits that were at one time adaptive in an ancestral (or even developmental environment) can now be maladaptive or "mismatched" to the environment that the trait is currently present in. We now come to an online interview with Professor Paul Gilbert. The editors have had to précis and paraphrase some of the discussion, so apologies if we have changed the emphasis or meaning. However we have tried to stay true to the initial meaning and intentions. (Eds. RA & PSS).

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## Virtual Interview with Professor Paul Gilbert conducted by Riadh Abed

### *1. What triggered off your interest in evolutionary theory in relation to psychiatry/psychology?*

Many years ago when I was a teenager I became very interested in Jungian psychology, which was related to archetypes. These are to do with inherited dispositions for creating meaning and organising motives, emotions and cognition. So for example, there is the hero archetype which is linked to going out and achieving in the world, there's the persona which is linked to wanting to present oneself as a desirable person to others, and so on. The idea that the human mind comes with pre-prepared organising systems is of course very different to a tabula rasa or even to some degree certain behavioural models. So, although my first degree was in economics, when I came to study psychology in 1973, I was anticipating the study of evolved psychological mechanisms, and of course it was nothing like that. We studied language, perception, animal learning, memory language etc. The issue of evolution of the brain was sort of in the background but never explicit, certainly not in terms of basic motivational systems. Even in social psychology, where you would anticipate evolutionary underpinnings, it was also pretty much absent being mostly social contextualism, rather than say trying to understand complex gene-social context interactions and things like phenotypes. I don't think the concept of a phenotype was ever mentioned in any of my courses. I always felt that in order for us to understand ourselves in general, but particularly our vulnerability to some of the very bad things we do to each other in our wars and tortures, and our vulnerability to psychopathology, we must understand how the brain evolved to function; specifically how its genetic and neurophysiological architectures are choreographed via contexts.

### *2. Why would you say is evolution important to the understanding of mental disorder?*

Evolutionary psychopathology is essential for the development of our understanding of mental health problems. Many of our psychotherapeutic models of psychopathology have been based on individual observation. Freudian psychoanalysis through to Beckian cognitive therapy, were all based upon particular kinds of observation. The pharmaceutical industry has also developed their models mostly on the basis of particular interests (and responses to) neurotransmitter pathways. Unless one understands **how** a system evolved and **why** it was "designed" (selected) to function, it's very difficult to understand it. Understanding depression or psychosis only at the level of some type or receptor is going to be reductionist, limited and even incomprehensible.

### *3. Why have psychiatrists been slow to embrace evolutionary theory?*

Psychiatrists are simply not taught evolutionary theory probably because so many vested interests are either not interested in teaching it or even against it. For example, there are those who are very keen on pathologising human behaviour and emotions using a simplistic medical model. They teach psychiatric disorders along the line of medical diseases and entities i.e. as essentialist, biochemical or histo-pathological (disease model-based) diagnostic categories. This is even though many clinicians are very suspicious of coming to such concrete diagnostic decisions e.g. based on such overly simple categories; the DSM V

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remains the dominant paradigm. To secure employment psychiatrists still need to know how to diagnose and that remains central to their education and examination. This type of psychiatry is potentially excessively reductionist. Behind every phenomenology and diagnosis in this model, there is the idea that what we call mental health problems are rooted primarily, if not only, in disturbances of neurochemistry. This is good for the drug companies, that fuel a lot of this way of thinking, and also to some extent the lawyers who like to have clear diagnostic categories.

When you have the preset view that schizophrenia is just like diabetes or heart disease, there is no reason to attempt to understand any issues around the evolutionary function of affected processes. Consequently many doctors seem to only require understandings of the mechanics of the disease in order to interact with the disease process. Of course, we know that type 2 diabetes is linked to glucose metabolism and insulin, but it is also about the evolution of eating behaviour (high preference for high-fat, high salt, high sugar foods) which, when it comes up against modern environment, becomes seriously problematic. Thus prevention is not going to be found in the “proximate cause only” medical model but in the interaction between our natural dispositions for eating and living in the modern supermarket environment. There is increasing agreement that the way to prevent such obesity driven diabetes is not just to come up with some drug to mobilise fat better but actually to go after the food industry so that we eat better.

Many types of mental health problems are analogous. They are bred within certain types of social environments. Therefore, rather than just trying to find drugs, we should be trying to work out how to change the breeding grounds for these subsequent disorders. For well over a hundred years we've understood that much depression is clearly linked to social contexts and prevention is not going to be found purely in medication. Understanding personal environmental interactions is crucial and evolutionary understanding plays a fundamental role in this because it helps us understand why certain kinds of environments do certain things to our brain and our phenotypes. Humans are evolved with certain needs/requirements and people cannot function adaptively in absolutely any environment.

#### ***4. Is it important to include evolutionary science into the undergraduate and postgraduate curriculum and if so what would be the best strategy to achieve this end?***

Yes! I believe evolutionary science is absolutely crucial. However in some places like America you have to recognise that you're up against the religious right which are a very powerful lobby for preventing the dissemination of evolutionary science anywhere in the education system. Concepts around evolutionary science should be taught right the way through the school curriculum. Humans are an evolved species with evolved brains and bodies that consequently carry with them a whole range of related problems. Understanding this information should be fundamental to how we understand ourselves. However evolutionary ideas are not taught, so that's why the problem isn't just at the undergraduate or postgraduate level.

Another problem with many such people as the religious right is they cannot take on board that in nature there are not only complex and amazing designs but also common though nevertheless really terrible designs!! One must view seriously just how awful a lot of life is. As life forms we must eat other life to survive, we are all born and then slowly decay and die sometimes rather horribly; we are vulnerable to a whole range of nasty pathogens including viruses that can maim or kill us in nasty ways. Zika virus, a recent new example, is believed



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to cause micro-cephalic babies. Why would a benevolent god allow this? (In our view evolutionary theory has more useful scientific explanations regarding suffering and how humans can lose the arms races against pathogens as compared to the explanations of religious theodicies. Editors).

Furthermore we have brains that can make us incredibly nasty with our wars and our tortures. Supernatural explanations of how life is therefore have a lot of explaining to do. People are often dissociated from the realities of human suffering, so clinicians run up against a lot of barriers to bringing in genuine science about what it is for biological life to be the way it is and for us to be the way we are. Mainstream psychiatry and the general public seemingly haven't taken any of this on board and still hides behind simplistic diagnostic categories along with the compartmentalisation of "us and them" so that they do not have to identify with any of these complex issues; only focusing on those "sick mentally ill people"!

### ***5. In your view why are there still no evolutionary psychiatry university departments and no academic journals dedicated to the subject whereas there are many dedicated to evolutionary psychology?***

There remains a lack of understanding and poor links between theory and practical applications of evolutionary insights. The dominance of an overly simplistic medical model and excessive focus on diagnostic systems (rather than just how easy it is for all humans to do bad things to themselves and others) is the problem. Using such illness models explains away many important issues. Illnesses are then looked at no deeper than their supposed neurochemical dysfunctions. Even biological psychiatrists tend to remain very poor in utilising concepts such as phenotypic neuroplasticity, neurogenesis, gene methylation or similar epigenetic ideas, which are fundamental to understanding how individuals interact with their environments to produce states that are conducive to prosocial behaviour and well-being or the opposite. Psychiatric training is rather poor in this respect. There are not going to be any evolutionary psychiatry journals until we get out from behind this barrier of diagnosis and start talking about the human condition in general as well as the fact that the human brain is really a bit of a mess and in certain contexts it choreographs itself (very unhelpfully) in certain ways

### ***6. How can evolutionary psychiatry fend off the accusations of promulgating 'just so' stories?***

There is a basic understanding of the degree to which process relates to function; so for example, understanding the evolved function of anxiety, anger, depression and paranoia. Those insights then point to natural triggers. Hence, when we understand something of the evolved function of mood variation -which one can link to changes in say "dopamine activity" -then it becomes possible to understand environmental triggers. For example, we know dopamine activity is regulated by social rank, power and status on the one hand and also to attachment security on the other. So there are very clear natural regulators. This is not a just so story this is hard evidence.

I think part of the problem with "just so stories" is that evolutionists have not been terribly helpful to themselves. Take for example, all the ideas about there being no such thing as genuine altruism. This is making a massive mistake around evolutionary pressures and consequent physiological systems that are regulated through contexts. An obvious example is

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that human intelligence has allowed us to use utilise contraception which has a massive impact on reproduction. So while it may be true that the evolution of altruism was through its impact on gene replication rates, and of course there are whole range of dimensions that can inhibit it -- such as non-kin, strangers disliking others - we can actually cultivate prosocial motivation and there is a lot of research now that shows that this has an impact on brain mechanisms through the processes of neuroplasticity, neurogenesis and so on. We even know that methylation means that individuals can become more or less disposed to altruistic lifestyles as a result of the context in which they grow up.

### **7. *Compassion focused therapy has met with great success and is possibly the only extant intervention based on evolution. Why have there been so few interventions in psychiatry based on evolutionary science?***

I think partly because one needs to move from evolved pressures and regulators into trying to understand the functions and mechanisms that are generating the problem. So, for example, in the case of compassion focused therapy this is rooted in an understanding of how prosocial motivational systems organise the brain and in particular the positive affect systems and regulate the threat system. So compassion is defined as *sensitivity to suffering/distress in self and others with a commitment to try to alleviate and prevent it*. Evolution of sensitivity to suffering goes way back. Even crocodiles hear the cries of their hatchlings from the nest and carry them to the water. We know that when individuals experience the helpfulness of others this creates particular physiological states. We can then move into attachment and how the affiliative behaviour of another (e.g. parent) has evolved to have massive regulatory impacts even right down to genetic expression. We know that children who grow up in safe, loving environments are much more orientated to prosocial behaviour and have much better affect regulation, and show differences in frontal cortex, amygdala sensitivities and HPA -than say children who grow up in stressful or abusive backgrounds. So this data indicates very clearly that experiences of care, protection and affection from others is physiologically extraordinarily powerful. There are also very good evolutionary reasons why this is so.

Compassion focused therapy therefore simply builds the therapy around the science of how affiliative motivation and emotion have major regulating impact on the brain. Compassion focused therapy also recognises the power of ‘anti-compassionate’ ways of being, such as with high self-criticism, shame proneness and/or hostility to others. This means that individuals are constantly giving themselves threat signals rather than affiliative signals. So the therapy therefore recognises this. It literally shows people how to train themselves in having more compassionate self-focusing with the idea of stimulating the vagus nerve as part of the parasympathetic and soothing system. So compassion focused therapy is one of the few therapies that is not based upon personal observation of a founding therapist. It is rooted, as best one is able, in a detailed understanding of how self-identity is formed, how affiliative signals evolved in mammals and particularly in humans to choreograph a whole range of phenotypes. Research on affiliative signals is showing just how powerful this dimension is to well-being.

### **8. *What would you say is your most important contribution to evolutionary psychiatry/psychology?***

One of the important issues I realised was to take evolutionary concepts and make them testable. One of the contributions I’ve made was to create a number of self-report scales over

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the last 20 years. I helped develop John Price's social rank model by developing ways to measure social comparison, submissive behaviour, shame (thinking others look down on the self) and also defeat and entrapment. Recently the defeat model has been recognised as one of the most influential models and powerful model for depression with a huge database now. That's (in a small way) partly possible because of ways of measuring the concept of defeat and low rank. I think there is now general agreement that *unwanted* low rank has the negative impact it does, because of how status hierarchies evolved. Subordinates do need to be cautious/anxious non-exploratory etc. We now are going to look more carefully at the changes that can occur contextually in the higher ranks which are called hubris. We have been discussing this with <http://www.daedalustrust.com/>.

I'm particularly interested in ways we can investigate these phenomenologies from an evolutionary point of view and how that may help regulate them, because after all, if we don't regulate these tendencies within humanity we're in trouble. Indeed the last 10 years has shown some remarkable research on how as people gain power they become less compassionate, less empathic and more self-focused. There are clearly evolutionary reasons for this but the consequences are quite serious in terms of a whole range of ideals for social change processes including for example how we govern ourselves. The reason the rich are getting richer and the poor are getting poorer can be partly understood from an evolutionary point of view. But that view needs to be useful for working against some of the undesirable (and there are many), consequences of having the evolved brain we possess. One requires a counteracting motivational system that shifts one out of the rank system and this is the caring or compassion system because it organises our minds in a completely different way. This is why at the compassionate mind foundation we have compassion leadership and compassion schools programmes. ([www.compassionatemind.co.uk](http://www.compassionatemind.co.uk))

### **9. What aspect of your evolutionary work are you most proud of?**

I'm very pleased with some of the work I did in the 1980's and 90s. My books, *Human Nature and Suffering* that was first issued in 1989 and *Depression the Evolution of Powerlessness* (1992) are now going to be reissued by Routledge. They are the books I'm most proud of. However I would probably write them a bit differently nowadays. I'm also proud of the work we did on developing measures and how we help to link the studies of shame with the studies of social rank. And of course I'm very pleased with how compassion focused therapy has really caught on; partly because people recognise we are seeking to produce quite deep changes in motivational organisation and therefore phenotypic orientation, but also because people have an intuitive focus on affiliative signalling both for themselves and for others. This is central to helping patients change. Much of this is discussed in a book called the *Compassionate Mind* (2009) and also *Mindful Compassion* (2013)

### **10. What advice would you like to offer to your fellow evolutionary psychiatrists/psychologists?**

Of all of the serious challenges to face humanity, the greatest is related to our own brains. Humans have the potential to do some very bad things. One can think for example that Chinese foot binding went on for 1000 years and genital mutilation still occurs causing suffering for millions. Our capacity for forming tribal violence and committing acts of

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horrendous brutality is obvious. On the other hand we have invented writing, culture, science, medicine, and are probably the most compassionate species that has ever existed. Because we have such a mixed orchestra of motives we are also among the nastiest species to ever have existed. So much depends of what gets stimulated in us.

We have been far too caught up in generating dubious classifications and have used our science to only focus on mental illness. This has over-pathologised what are actually natural and 'normal' potentials within us and avoids confronting that the human brain is pretty crazy or at least can do some very crazy things very easily. One need not use the DSM V's categories to create conditions for Chinese foot binding or create the conditions such as our inner cities which are breeding grounds for psychopathology. Evolutionary psychologists and psychiatrists should be far more active in prevention and politically involved in challenging the way we are creating pathology-generating cultures and phenotypes. We should try to think about how to create cultures, societies, groups and schools that are conducive to human well-being given that we know that humans are an evolved social species and as such have a range of social needs in order to feel safe and to flourish.

Evolutionary thinkers should be at the forefront of thinking about how to create flourishing environments. Ultimately we are the people who are supposed to study how the brain has come to be the way it is because of the challenges in contexts that have shaped it over the millions of years. So my advice is to become impassioned with our science (along with others of course). Evolutionary psychiatry really does offer us insights into what will help people flourish, feel safe and have a sense of well-being and purpose. We really can address the issues of interpersonal and intergroup conflict and we really can address the issues about how power and dominance hierarchies can be better regulated.

### **Future SIG meetings May 18<sup>th</sup> Symposium Oct 4<sup>th</sup>**

There is a second meeting of the EPSiG 2-4pm on May 18<sup>th</sup> at the college HQ in London, 21 Prescot Street, London, E1 8BB.

All interested members of the college are welcome.

We will be having a talk form Annie Swanepoel on her group's paper.

We will also hold a meeting (See agenda below), where we will be discussing future events and progress.

### **Resources and Website**

This is still work in progress and is now available on the college website.

<http://www.rcpsych.ac.uk/workinpsychiatry/specialinterestgroups.aspx>

### **Talks on why people are interested in EP**

At SIG meetings it is suggested that people might like to give their story as to why they are interested in evolution and how they came to the field. Perhaps short talks or presentations at SIG meetings could enable this. Alternatively a paragraph or two in a regular section of these newsletters may also be useful for those less inclined to talk but able to put what it means to them in writing.

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## Getting Evolutionary Psychiatry into mainstream MRCPsych and exams

One aspiration of the SIG is to get Evolutionary Psychiatry ideas into mainstream psychiatry. This is something that we consider a high priority. This involves getting it into the MRCPsych curriculum (probably Paper 1) and to have a few questions each exam.

Interestingly, we have been invited by organising members of the adult faculty to join them in a symposium on evolutionary psychiatry in 2017. This is an exciting opportunity and we hope to collaborate with other faculties, sections and SIGs in the future, even though we recognise that it also has its challenges.

## Lectures, Symposia and conferences

We are also setting up our own one day symposium this year 2016 at the college headquarters on 4 October and we have an excellent line up of speakers. The two confirmed eminent guest speakers are Prof Robin Dunbar and Prof Simon Baron-Cohen.

All members, fellows and trainees as well as those from related disciplines will be welcome.

Also later this year, the World Congress of Psychiatry (WPA) International Congress 2016 will be held in Cape Town, South Africa in November 18-22, 2016. The World Congress of Psychiatry (WPA) International Congress 2016 will cover topics such as evolutionary psychiatry. We are sending a contingent from Europe that will include members of EPSiG.

## Articles for the newsletter

Please do send me ideas or topics in 100 words, book reviews and small articles.

We hope the newsletter can be available to all interested members and fellows.

Clearly there needs to be a link with psychiatry and preferably some evolutionary context.

Please send any articles to me or just contact me by Email:- [paulstjohnsmith@hotmail.com](mailto:paulstjohnsmith@hotmail.com)

We are also interested in constructively critical opinions, though be prepared for vigorous debate. This is not however the place for an intellectual or philosophical battle between science and religion! For those interested in the evolution creation debate I would signpost you to:- <http://www.talkorigins.org/>

**Talk.origins** is a Usenet newsgroup devoted to the discussion and debate of biological and physical origins. Most discussions in the newsgroup centre on the creation/evolution controversy, but other topics of discussion include the origin of life, geology, biology, catastrophism, cosmology and theology.

The Talk Origins Archive is a collection of articles and essays, most of which have appeared in talk.origins at one time or another. The primary reason for this archive's existence is to provide mainstream scientific responses to the many frequently asked questions (FAQs) that

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appear in the talk.origins newsgroup and the frequently rebutted assertions of those advocating intelligent design or other creationist pseudosciences.

### **The RCPsych Evolutionary Psychiatry Special Interest Group (EPSiG) Spring Meeting, Wednesday 18 May 2016 ; College HQ in London 2-4pm**

#### **Agenda:**

2.00-2.30 Presentation by Anne Swanepoel: Evolution and Child Development  
(Chair: Paul St John-Smith)

2.30-2.45 Q&A

2.45-4.00 SIG Business meeting (all SIG members and supporters are welcome to participate). (Chair: Riadh Abed)

1. Planning for EPSiG symposium (all day symposium 4 October).
2. Ideas and material for the newsletter and the website e.g. articles for the newsletter; Topics in 100 words, book reviews, small opinion pieces.
3. MRCPsych syllabus
4. Forward planning for 2017 including Symposium in general adult faculty
5. Any other business