



## Evolutionary Psychiatry Special Interest Group (EPSIG)

## Newsletter No.16 September 2019

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#### **Notes from the editor**

We had a very stimulating scientific afternoon on May 31st where fundamental ontological and phylogenetic questions, theories and ideas about the evolution of human suicide were considered. Details are given below. Ben Janaway reports about his views on these talks in some detail in his article below. For me I took away a several important considerations put here in rather oversimplified form. One was that a true suicide (depending on definition!), requires an individual to have enough brainpower to evaluate the potential for pain in the future, as well as the brainpower to know the consequences of and ways to kill oneself. (This may explain why very young children do not commit suicide). The ability to contemplate and commit suicide ( As distinct from animal behaviours that may lead to their own death), may therefore be a by-product of our large developed brains. A further consequence postulated, was that defences to prevent or protect against suicide (Some of which look like depression) may also have evolved (in parallel), such that nowadays, some features of mental illness for instance, psychomotor withdrawal, may inhibit suicidal actions and explain why sometimes the treatment of depressive symptoms can ironically lead to attempts and even completion of suicide. I remain unconvinced that some mental illness evolved to prevent suicide, in any case mental illness is not one thing and neither are depressive disorders. I would reckon this phenomenon is more likely to be an exaptation, spandrel or by-product. Nevertheless this is certainly food for thought and worthy of consideration as well as future empirical investigation. Still judge for yourselves, the links are provided below.

In this issue we have the following:

- 1. The minutes of the EPSIG annual meeting on May 31st at the college
- 2. A report by Ben Janaway report on the scientific <sup>p</sup>resentations by Dr Mohammed Abbas, Consultant Psychiatrist and Honorary Associate Professor at University of Leicester. And Dr C.A Soper on the subject of 'Adaption to the Suicide Niche.'
- 3. We are providing links to Soper's and Abbas' ppts from EPSIG web pages.
- 4. And to the recently published paper by Dr Soper based on his presentation at the EPSIG workshop at the college on 31 May which has just been published by Springer and can be accessed by this link ; https://rdcu.be/bJmXD
- 5. Also of possible interest is: The Compassionate Mind Foundation's 8th International CFT Conference; THE COMPASSIONATE MIND IN ITS SOCIAL CONTEXT: FROM THE BODY TO THE SOCIAL WORLD at the Royal College of Physicians 8<sup>th</sup> 11<sup>th</sup> October 2019 Plans for live streaming in progress. To register your interest please email hello@compassionatemind.co.uk For full conference details and to book your place visit: WWW.COMPASSIONATEMIND.CO.UK,
- 6. There is also a a link on compassion focused therapy (CFT) from Paul Gilbert. Here is a link to Professor Gilbert's open access article. The article provides an update and summary of this evolutionarily-based psychological intervention that should be of interest to many EPSIG members: <a href="https://www.ecronicon.com/ecpp/pdf/ECPP-03-00107.pdf">https://www.ecronicon.com/ecpp/pdf/ECPP-03-00107.pdf</a>.

  (A Brief Outline of the Evolutionary Approach for Compassion Focused Therapy Paul Gilbert\* Centre for Compassion Research and Training, University of Derby, College of Health and Social Care Research Centre, Derby, UK \*Corresponding Author: Paul Gilbert, Centre for Compassion Research and Training, University of Derby, College of Health and Social Care Research Centre, Derby, UK. Citation: Paul Gilbert. "A Brief Outline of the Evolutionary Approach for Compassion Focused Therapy". EC Psychology and Psychiatry 3.6 (2017): 218-227. Received: May 16, 2017; Published: June 06, 2017)

#### Cronicon

Cronicon OPEN ACCESS EC PSYCHOLOGY AND PSYCHIATRY Research Article A Brief Outline of the Evolutionary Approach for Compassion Focused Therapy Paul Gilbert\* Centre for Compassion Research and Training, University of Derby, College of Health and Social Care Research Centre, Derby, UK

www.ecronicon.com

We are also planning for the 1 May 2020 for another half day scientific meeting as well as the full day 4<sup>th</sup> International Evolutionary Psychiatry Symposium on 16 October 2020.

We also plan to work with the RSM on a joint meeting on an interesting question:-

'Has Natural Selection Ceased to Affect Humans?'

Also next year we are planning to set up a 'Charles Darwin Essay Prize' for non-consultant grades in UK. This will involve writing on a topic related to both Darwinian evolution and psychiatry. We look forward to receiving some ideas or titles / topics to put forward to entrants.

#### Minutes of the EPSIG AGM held at RCPsych on 31 May 2019

#### **Attendees:**

Mohammed Abbas

Riadh Abed (Chair)

Viraj Chouhan

Adwaita Ghosh

Agampodi Gunasekara

Bejamin Janaway

Muzaffar Kaser

Agnieszka Klimowicz-Sikora

Cara Maiden

Abayomi Onikoy-Deckon

Paul St John-Smith (Newsletter editor)

Annie Swanepoel (Associate editor)

#### **Apologies for absence:**

Saadi Ali, Agnes Ayton (Treasurer), David Geaney

- 1. Presentation by Fiona Watson from the RCPsych Information and Library Department. Fiona explained that all college members can obtain login details for access to the college literature database which includes a large number of journals. Full text PDFs can be downloaded directly through this system free of charge. However, articles obtained from other libraries may involve an extra charge. In addition members may request literature searches to assist in research and other academic activity and an example was produced at the meeting of a literature search on the efficacy of suicide prevention strategies. The session was very useful and informative and we are grateful to Fiona for giving up her time to attend our AGM.
- 2. In the absence of Dr Ayton, our Treasurer, Dr Abed, gave a brief review of our financial position. In summary EPSIG has a sound financial position with reserves of around £15,000 arising from the surpluses accrued from our 3 symposia.
- 3. A brief review of EPSIG activities 2018/19 was presented by the chair. This included our half-day scientific meeting 18 May 2018 and the whole day 3<sup>rd</sup> International symposium 22 March 2019. The symposium attracted over 70 registrations and a line-up of internationally renowned speakers. All symposium presentations were recorded and are available on the EPSIG YouTube channel with links on the EPSIG web pages.
- 4. Dr St John-Smith, newsletter editor gave a brief report on the publication of the EPSIG newsletters and explained that we have issued 3 newsletters during the first half of 2019 and the 16<sup>th</sup> newsletter will be published end of summer. All the EPSIG newsletters are posted on the EPSIG web pages. He invited suggestions for future interviews of evolutionists of any discipline as well as contributions such as book reviews, conference reports and evolutionary essays.
- 5. Ideas for our future meetings were discussed. These include the half day scientific meeting on 1 May 2020 as well as speakers for our 4<sup>th</sup> International Symposium scheduled for 16 October 2020. A number of promising ideas were proposed and these will be pursued by various members. Also, it was noted that at the next AGM EPSIG will hold elections for the offices of chair and treasurer.
- 6. The proposal for launching a Charles Darwin Essay Prize that would be open to any doctor working in a non-consultant grade in the UK (foundation doctors, CT & ST trainees and staff grades). The value of the prize was proposed to be £500 and the winner would be invited to attend the EPSIG annual symposium and present their work there. This was unanimously approved. The details were discussed and these will be published separately on the EPSIG web pages.
- 7. MRCPsych syllabus: The only issue to report on this was the imminent publication of an editorial in the BJPsych advocating the inclusion of evolutionary biology as a basic science of psychiatry into the MRCPsych syllabus. We are hoping that this would help raise the profile of the debate over this issue within the college.
- 8. AOB: There were no items under this heading.

#### **Other meetings:**

There is a Major Evolutionary Psychiatry Conference: Sicily Oct 22-27

#### ETHOLOGY, PSYCHOLOGY, PSYCHIATRY: AN EVOLUTIONARY APPROACH

October 22-27, 2019, Erice, Sicily, ITALY

This will be an important meeting for all interested in evolutionary psychiatry. The setting, in an old monastery on a mountaintop in Sicily, is stunning. This conference is open to all. Registration and abstract submission are open now.

You may also wish to note the following 2 confirmed dates for next year's EPSIG meetings: 1/5/2020 AGM and half day scientific meeting. This AGM will involve the elections of new officers (Chair and Treasurer) as the term of the current incumbents will expire in 2020.

16/10/2020 4th International EPSIG symposium at the Royal College of Psychiatrists

#### Evolutionary explanations of Suicide, novel approaches shed light on ancient questions.

#### Review by Dr BM Janaway

On the 31<sup>st</sup> May 2019, members of EPSIG and assorted guests met to discuss theories related to the potential evolutionary roots of suicidality in the 'Evolutionary Perspectives on Suicide Workshop.' The event was well attended and raised several contentious discussion points which have a direct bearing on not just our understanding of mental health and suicidality, but the ethics of detainment under mental health legislation (a subject, which in itself, requires more detailed discussion and its beyond the scope of this report.) Formal full critique is also beyond scope, but some is included as mode of explanation of to provide context. Moral debate is encouraged, but not expounded. All lecture Powerpoint slides can be viewed here.

The first speaker was Dr Mohammed Abbas, Consultant Psychiatrist and Honorary Associate Professor at University of Leicester. His background is of clinical research into the motivations of behaviour, transcultural epithets of the aetiology of the same and the development of new formulative assessment methods.

His talk began by addressing the disparate rates of suicide across different cultures, weighing not just sex and age of client, but background and sociocultural aspects of their case. He directly compared suicide rates between an Anglocentric westernised culture and that of Iraq, demonstrating differences in both prevalence and risk factors, noting key differences which may warrant explanation in both cultural and social domains.

He went on to summarise the WHO 2014 evaluative model of suicide risk, prevention and intervention, before citing the oft disputed conclusion of Klonksy (ref) that there is no clear effective intervention to prevent suicide, but that some have more evidence than others, including dialectal behaviour therapy, cognitive behavioural therapy for suicide prevention and collaborative assessment.

He went on to address the key issue that suicidal behaviour is a complex phenomenon which lends to its inherent issues with therapeutic intervention. The remainder of his talk focussed on explaining not simply the differences in rates, but how our understanding of suicidality and approaches to understanding may play a role.

This included delineating the evident dichotomy between intent to die and intent to harm, which also includes, by, proxy, death by misadventure. All of which may have different cognitive, psychological, behavioural or biological antecedents, share similarities or occupy different points on a continuum or be subject to change through different progressive timelines, related to, or independent of, external stressors. Unfortunately, it has been proposed that the distinction of self-harming behaviours favouring evolution has no evident basis as adaptive.

He went on to discuss the motivational model, dichotomised for simplicity as the 'because motive' vs. 'in order to motive.' To explain them briefly, the former relates to the response to a prior event, the latter as preparatory to approach or remove oneself or experience of a future one. Similar explanations can be drawn, by analogy, to the reactive vs. instrumental theorem of aggression.

Abbas stresses that the 'because motive' has a more deterministic feel (and may indeed by extension signify a positivist explanation) and the 'in order to' motive suggests a 'greater freedom of action (and by extension propose the rational actor hypothesis.)

Clearly the two are quite opposed on a surface analysis, but prompt consideration of not just timelines and events as anticipatory aetiological, but within one or more spectra of behavioural responses that evolutionary explanations could instil. Furthermore, reframing assessment and interview based around these ideas could help psychiatrists and psychologists to better understand motivation behind suicidality, and go some way to explain, in some fashion, both individual, cultural and epidemiological patterns of emergence.

However, this was only half the question, the latter being our ability to even understand the experience itself and our potential reliance on Anglocentric explanatory models which he then went on to address. With this ethical, biological and philosophical quandary still hovering, he went on to consider the potential weaknesses of nomothetic (related or ascribed to relatable and universal law,) or ideographic (individual and context specific) evaluative processes regarding the already variant subject matter.

Not one to shy away from a challenge, Abbas addressed Max Weber in support of a marriage of explanation and understanding of 'interpretative explanation', which hoped to rectify the epistemological gulf between deontological quantitative approaches and a utilitarian ethos of patent led understanding. The inference being that the contextual model of understanding, which is patient led, would provide clearer information to influence structural and process explanations of behaviour beyond the case.

For Weber, this led to the development of 'ideal types' which unfortunately only existed as theoretical archetypes of sociocultural expectation, the divergence from which was not found to be relevant due to the lack of external reproduction of the construct. There are evident parallels here with the conclusions of Thomas Szasz, who famously declared that empathic understanding of the extremes of human experience beyond the rational were beyond understanding.

With this in mind, where the cultural differences in suicidality, the potential variance of explanatory models, processes and distinctions between intent and non-intent, nomothetic vs. ideographic, deterministic (positivist) vs. agency and the myriad philosophical intricacies relating each, Abbas was able to propose the SPSM model which attempted to compensate for each, whilst simultaneously tackling the inherent fallacy of robustly efficacious suicide prevention.

The model itself is much more empathetic and context driven, but also relates to a 4 part rule comprising addressing the 'Source' of the problem, the 'Problem', the Solution (suicide or self-harm) and the Motive (because vs. order to.) This model allows the psychiatrist to evaluate the specific nature of the client's problem not just deontologically, but empathetically and in context, but crucially omitting the idea of a Weberian archetype, saving its critique from a lack of generalisability.

He went on to separate the 'Source' as risk factors, the Problem as the emotional experience or cognition, the Solution as the action, and the motive as either 'because' or 'in order to', citing examples which can be seen in the slides (they are too numerous to summarise here.) Crucially, he developed a stepwise protocol for assessing not just risk, but narrative of suicidality which opened doors for potential interventions beyond what is currently commonplace.

In summary, his lecture was incredibly interesting and raised a number of philosophical and epistemological questions, some of which may be answered in evolutionary theory, but also ventured into concepts around the limitations of human understanding of psychiatric illness, the result of failures to understand in extremis, and potential avenues for rectifying this.

The second, and final, talk of the day was by C.A Soper on the subject of 'Adaption to the Suicide Niche.' Soper, a PhD whose work around and theories into the evolutionary explanations of suicide have been published as a stand-alone tome, presented a nuanced and comprehensive consideration of the potential purpose of mental health regarding suicide prevention.

His talk began with defining our unique propensity to take one's own life, a specific level of environmental hostility that exists only to humans. He argues compassionately that, much like any animal would develop adaptive schema to seek food and avoid predators, we have developed behaviours and traits to avoid suicide. He argues specifically that 'much of what we call mental disorder' is, in fact, protective mechanisms to avoid death by suicide.

This idea, brilliant in its design, clearly raises contention when considering the potential conveyed message of 'mental health issues protect,' which may be argued as cohesive with 'suffering is good.' It does not suggest this at all, as within the evolutionary crane we must remember that the ecological determination of 'good or bad' omits human morality and proceeds only with the conservation or omission of gene lines.

Given the myriad varieties of suicide, a heterogeneous selection of motivations (such as championed by Durkheim,) Soper has limited his considerations to only 'solo' suicide, i.e. those typically associated with mental illness, and not others such as with terrorism or physician assisted. This may provide some further scope for development of the idea, as if we are to assume a positivist approach to the idea, these acts may also, and most likely are, explained by some corner of human psychology that is not spared the evolutionary process (if we are to remain consistent.)

The development of the theory came from logical deconstruction of suicide as an adaptive problem from which 'anti-suicide defences' emerged. He argues that the existence of suicide, as an adaption, is the combination of two different traits, the demand to 'escape threat' (common to all animals,) and the human ability to 'self-exterminate,', an extremely effective way to escape, permanently, the psychological and physical experience of both the perception of, or actualised threat.

Clearly, this idea raises questions already, how does a mechanism for the protection of life exist where an adaptive component can lead to death? Classically, most temporally maladaptive processes

within evolution (consider, for one, the baroreceptor propensity to increase blood pressure over time,) are spared omission as they are not dangerous (to a significant species level) before the age of reproduction. However, suicide is oft a 'young person's game,' with ideation and attempts often occurring from before teenage years to mid to late teens and onwards.

It is worth noting however, that the average age of suicide does yet still exceed the historical onset of reproductive age by several years, so it is not omitted entirely purely by this critique. Put simply, the suicide of a parent would hamper the survival prospects of young offspring, essentially creating a maladaptive gene that kills going forward.

But evidence does suggest that the predisposition to suicide is familial, so clearly there is a genetic component. There is variation across culture (as to be expected with any expression of phenotype.) So, we are left with the classical riddle, how can such a process be adaptive, and yet have evidence that is so? As Soper muses, suicide fits the triad of trait, variability, hereditability and differential impact on fitness.

Soper goes on to talk further on the uniqueness of human suicide, stating that there are likely 'principled' reasons that only humans would kill themselves. Thus, the trait is subject to speciation, and so dependent on some phenotypical construct existent only as a result of human natural selection. Soper suggests that this trait, or potential to develop such behaviours, emerged sometime after our split with ancestral primates.

He also comments that since suicide is present across all cultures across all time, it is unique to humans, and that since it still exists and, holding in esteem the crux that evolution does not accommodate maladaptation, that it is maintained for some purpose. It is important to delineate 'purpose' or 'value' from an economic sense, from that of what we would ascribe moral judgement. However, it is worth noting that the disease is suggested as adaptive as prevention of suicide as a trait in itself.

Soper goes on to remind of us of the three methods of genetic propagation, randomness, as an adaption, or as a by-product of an adaption. Soper is quick to dismiss the adaptive component, and further expunge the romantic notion of 'heroic acts' which may potentiate reproduction, as these do not fill the 'run of the mill' suicides that are usually done in isolation (although this does not rule out the characteristic 'to relieve the burden of others' which could be reasoned as to be within the 'heroic explanations.')

He argues, by extension, of the facts that suicidal behaviour is hereditary and maladaptive, that it is a by-product of something adaptive. He concedes that this conclusion is theoretical. Soper then suggests that, as with a co-adaptive trait or link between primary adaption and by-product, that the relationship determining its propagation across time could still be seen today. For suicide, he suggests, the first is 'pain' (primarily psychological but may include somatic pain) with suicide an escape from it. He references Shneidman's theory of 'psychache' (a rather catch all description of the heterogeneous qualia of pain including humiliation, shame etc.)

Soper argues, as we would agree, that pain is immediately adaptive, although chronically less so. We can logically surmise the benefit of fast fibre pain helping us to withdraw a limb from flame but can less rectify the slow burn and gnawing of a tumour, or indeed the ache of phantom limb. The latter likely present an aberration of adaption, where a simple and beneficial process to survival becomes untenable out of the useful context. As Soper says 'pain is biologically designed to be unbearable, it is specifically designed to motivate the organism to escape from it.'

As true as this axiom holds for physical or psychological pain, it is not the whole story, as not everyone will kill themselves to avoid pain. We know that ideation can begin in to become significant in preteen years and rise sharply as time goes on until early adulthood. Actual planning and attempts run a similar course, but a lower prevalence. This is true across cultures, suggesting a similar pattern across the species. Once again, we see that this is a minority, whereby the simple presence of an 'escape from pain' is not a satisfactory explanation due to heterogeneity.

Soper notes that although children experience pain, they rarely, if ever, voice a consideration of suicide. But in the young teenage years there is sudden explosion of suicidality, with one potential explanation being the advent of a 'developmental threshold.' Put brashly, the brain must mature to consider its own destruction, and from that time the threat must always be held back. This is the 'cognitive floor' for suicide.

As such, we reach the second of the two adaptions. The first is 'pain' and the second is 'brain.' As Soper puts it, pain is an adaptive mechanism coding for escape, and suicide is a conceptualised method of escape gained at a level of cognitive maturity. He argues that the conceptualisation of suicide is complex (and this is worth further reading in his book,) and therefore limited to humans. An interesting corollary of this idea is that intelligence can bring about a species own destruction, if certain measures are not put in place.

Noting this, Soper then reasons the more contentious part of his theory, that mental health issues (as we define them,) are in fact, adaptive in protecting us from suicide. To paraphrase, poetically if not contentiously, Richard Dawkins, it's an arms race.

As with any arms race (although classically this exist between advantageous traits between species) there is a 'tipping point' by which the presence or absence of a trait, and its protective vs. risk variability, becomes 'demographically sustainable' as Soper puts it. Essentially, this new breed of human, with all its intelligence, was at a higher risk of suicide, but the adaption of protective mechanisms became necessary for continued survival and did so, across cultures and time. However, like with all traits, this adaptation is not perfect, and suicide does still occur at extremes.

As Soper has alluded to, and I have expounded, these protections are not limited to purely social and pastoral factors but exist within the cognitive neurobiology and psychology of the brain. With enough pain, and the predisposing brain, suicide is an eventuality in the absence of functional protective mechanisms. Soper suggest a hierarchy of defences operant at different severities. The first being basic homeostatic mechanisms to keep us 'happy.'

To push this idea further, we tend to spend most of our time doing things that make us feel good. He goes on to argue that we tend to hold an 'irrationally benign' view of the world, probably because this illusion is more tenable in avoiding pain. One cannot avoid considering the old adage of 'those with depression see the world more clearly.'

The second level of protection is indeed cultural and social, and is of a memetic nature, with suicide frowned upon and stigmatised. Religion, an arguably cohesive structure, oft looks upon suicide with not just disdain, but existential punishment. The fear of punishment outweighs the existence with pain. There are moral arguments to be had around this subject, stigma notwithstanding, but these are beyond the scope of this work. What we must remember is, as Soper dutifully points out, it is often the kin of victims that suffers.

The last and crucial line of protectors is emergency 'keepers', which will sacrifice certain tenets of good to protect against annihilation. This is where Soper theorises that mental illness is adaptive, as an imperfect and last line defence against death. It is worth noting once more, that at no point has Soper argued that 'suffering is good,' but if we are to remain philosophically consistent, we are left at a quandary, where we may consider that suffering that prevents death has some value, but only in relation to the absence of suicide. One may rectify this by stating that suffering is bad and that survival is good, and our duty is to prevent both suffering and death.

Although, when it comes to the subject of euthanasia (which Soper has omitted from this argument for various reasons,) this does raise further lines of moral debate. Soper suggests that for these keepers to be effective, they must be robust and beyond our conscious control. Soper suggests 20 predicted characteristics of these keepers, formed from either 'pain' type responses, 'brain type' or a mixture of the two. These are discussed in greater detail in the slides and his book. A striking example of this is the conservative nature of biology, where severe physical or emotional pain is dealt with by reducing expenditure on cognition, where the individual may appear 'deranged' as a result.

Soper comments that these processes, 'designed to be protective' come at a cost to the functioning of an individual, which when viewed under a social lens begins to look very much like 'mental disorder.' He gives examples like alcoholism (keepers can become pathological,) or disordered thinking (keepers may become unpredictable) or depression (keepers would reduce motivation or ability to complete suicide, i.e. psychomotor retardation.) He makes numerous references to symptoms that may represent adaptive mechanisms.

In summary, Soper's theory, as nuanced and delicate, consistent with evolutionary maxim and creative in its logic as it is, provides us not just with a new way of considering mental health, but potential ethical arguments not over just the societal perception of illness, but our legal and clinical duties and powers. Suicide is a human problem resultant of our cognitive ability, heritable and only mitigated by homeostatic mechanism, society and what we call mental health disorder. As Abbas concluded, as does Soper, that regardless of our growth in understanding of suicide, we are still bad at predicting it on an individual level. However, it is possible that with continued research and new thinking, that we can move forward into more stable ground. It is here that evolutionary theory may provide novel clues.

All in all, the afternoon was a challenging and enlightening discussion, and raised many questions not just about the aetiology and explanations of the human condition at its most extreme, but deep questions underlying the very perceptions by which we exert control over our own destiny.

<u>Dr Ben Janaway</u> is a trainee psychiatrist with an interest in neuropsychiatry, psychopathology, evolutionary explanations of delusional belief systems and new treatment avenues. He regularly writes for 'The Mental Elf, and has written for newspapers and online science communication groups.

<u>Articles for the newsletter</u> We welcome submissions for future newsletters in the form of articles, reviews and interviews. Correspondence: Replies, suggestions and clarifications on articles are welcomed and may be printed/included in our next newsletter. Also, we welcome brief reviews of seminal articles where there is an evolutionary or other relevant conceptual angle (please include the weblink if the article is open access).

Please send any submissions to me at: - paulstjohnsmith@hotmail.com