

## Evolution and Empathy

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A concept which has been pondered by many over the millennia is that of good and evil in Man. Is Man born intrinsically good or evil?

Important processes that occur in biological evolution contribute useful guidelines to understanding this issue. Early life forms competed for limited resources such that the prevailing dynamic was 'the survival of the fittest'. The next evolutionary phenomenon was one of group co-operation. This development most likely occurred as a consequence of the success and efficiency of group co-operation in securing resources for its members – the whole was more than the sum of its parts.

With the development of procreation and the need for nurture, another important evolutionary milestone was reached. Intrinsically coded in the neuropsychology of the organism was the need to recognize and support a helpless and dependant offspring. This in effect is the fundamental circuitry supporting empathy.

In terms of the evolutionary heritage therefore, the human being is programmed for co-operation and empathy. This could be regarded as the inherent 'good' in mankind. Nurture deprivation on the other hand results in the infant narrowing down to appeasing their own needs. In its more extreme forms the pre-occupation with self-interest may suppress the intrinsic empathic circuitry and thus give rise to potentially destructive emotions insofar as other human beings are concerned.

It would seem therefore that our evolutionary heritage predisposes us to act empathically and can be regarded as supporting our 'good' inclinations while degrees of nurture deprivation give rise to our 'evil' inclinations.

After addressing the concept of 'good' versus 'evil' we would need to address the subject of 'right' or 'wrong'. In terms of the bigger picture, is empathic behaviour or the lack thereof, right or wrong? If we re-join our evolutionary line and incorporate and promote empathic behaviour as a universal value, there is the danger that dwindling resources may be diverted from the evolving fittest to the intractably weak.

When considering this issue however, we need to bring into the equation a relatively new variable – that of the neurobiology of empathy. Empathy expressed or experienced results in the secretion of the hormone/neurotransmitter oxytocin. Oxytocin in turn suppresses the area of the brain supporting fear, anxiety and rage. Oxytocin also suppresses the high levels of cortisol associated with stress and deprivation as well as suppressing inflammatory mediators (pro-inflammatory cytokines). Finally, oxytocin stimulates the part of the brain which mediates the feeling of personal gratification (nucleus accumbens).

Empathy therefore can be considered to be a neuropsychological state which has evolved from a heritage of group co-operation and the need to nurture offspring. The empathic state is enhancing in terms of quality of life and longevity, in the context of neurobiology. The antithesis of the state of empathy are the deprivation states characterized by varying degrees of self-interest, which are associated with chemistry predisposing to illness.

I conclude therefore with the contention that empathy is a neuropsychological state. It is life-enhancing and based on identifiable evolutionary determinants. However it would need to be modulated in the context of the practicalities of life. In terms of the species as a whole therefore, I believe that experiencing, identifying and promoting the state of empathy should be our primary objective if we were to be true to our heritage and our neurobiology. The *exercising* of empathic behaviour however is a choice. Any given individual should primarily appease their own requirements in terms of meaning, purpose and the experiencing of a sense of personal achievement. This would include nurture responsibilities of their own offspring. Remaining resources may be offered in a discerning manner to others in need, in the spirit of the state of empathy. There is thus no 'right' nor 'wrong' in the exercising of empathy or not. It is a matter of personal choice and degree.

## References

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