

POSTER

Understanding the Drive to Sexually Offend from a Neurobiological Perspective

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Ward, Polaschek, and Beech (2005) have examined modern theories relating to all aspects of sexual offending. Results of this extensive analysis suggest that there are a number of types of related causes plausibly associated with sexual crimes. These causes include: genetic predispositions; adverse developmental experiences, e.g., abuse, rejection; attachment difficulties; and an early history of abuse. All of these can be seen as leading to problematic psychological dispositions/trait factors, such as: empathy deficits, attitudes supportive of sexual assault, deviant sexual preferences, emotional skill deficits, and interpersonal problems. Social and cultural structures and processes and contextual factors, such as intoxication and severe stress are also seen as playing an important part in increasing the likelihood that a sexual offense may take place.

However, although the deficits sexual offenders report have been outlined in a great deal of detail, the drive to commit sexual offenses in pedophilic individuals and incestuous offenders is still somewhat underspecified. Pedophilia does not make any sense in evolutionary terms where one of the drives of an individual is procreate. While, going out and raping strangers would also appear to be a poor mating strategy as the possibility of pregnancy is so low. We would also note that the process of having sex itself is a dangerous business in itself, as it involves contact with the bodily fluids of another. Here, we would note that the need to avoid infection has a major effect on the mating strategies used by many species. Both vertebrates, and invertebrates, will reject infected conspecifics (members of the same species that it is possible to have sex with) in favor of non-infected alternative mates. Such parameters may well also guide human sexual behaviors. Indeed subjective judgements about attractiveness tend to also predict healthiness and even longevity. Therefore, one hypothesis regarding the motivation for pedophilia, may be that an exaggerated 'fear of contamination', in some individuals, leads them to be attracted towards children because children are seen as representing a lower risk of contamination than older individuals. While, for those individuals who are willing to commit random sexual assaults have an unusually low level of fear regarding their sexual behaviours.

What we aim to outline in the talk is a neurobiological explanation for these drives taking into account the putative actions of these neuropeptides (vasopressin and oxytocin) in the amygdala. The amygdala represents a

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major component of the limbic system. It is critically involved in the processing of stimuli associated with sexual and parenting behaviours and plays a vital role in aversive conditioning and anxiety reactions. *Oxytocin* is involved in social recognition and bonding. Evidence suggests that oxytocin is linked to social support, regulates stress hormone release and buffers stress.

Vasopressin is involved in forming memories of social interactions. It plays a role in social behavior, initiates and sustains patterns of sexual activity. Specifically in the talk we will outline, with a degree of associated evidence, how hypoamygdala function and low levels of oxytocin can lead to sexual promiscuity and in extremis non-specific sexual offending. We will further argue that hyperamygdala function and high levels of vasopressin can lead to the drive to form attachments, but leave such individuals socially anxious with fearful of negative evaluation from high status individuals and an elevated fear of contamination which will lead individuals to offend against children, who are typically low status individuals (where there is little fear of threat), and where there is a low perceived chance of contamination.

Reference

Ward, T., Polaschek, D. & Beech, A.R. (2006). *Theories of sexual offending*. Chichester: Wiley. ISBN 13-978-0-471-49167-5.