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The reappearing psychopath: Psychopathy's stain on future generations

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ABSTRACT

The genesis of the psychopath has long been debated, typically within the framework of the long-held nature versus nature argument. Are psychopaths born psychopathic or are they molded by society? Like all personality disorders, the development of the psychopathic brain is dynamic, and as the psychopath remains a consistent, albeit small, part of the population, one has to wonder why psychopathy continues to reappear in generation after generation.

I explore the characteristics of psychopathic behavior, current theories on the adaptive qualities of this behavior, and psychopathy as it manifests in women. I argue that psychopathic behavior is not itself selecting for psychopathy. Psychopathy is a mental disorder that increases the likelihood of a set of behaviors, but these behaviors are not unique to the psychopath, and so will not favor the continued presence of psychopaths in the population. I also discuss the biological characteristics of the male brain that may make it more susceptible to psychopathy than the female brain.

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1. Introduction

The topic of psychopathy remains popular. Academic advancements and new research techniques continue to improve our understanding of psychopathy, which—along with the intrinsic fascination of those without a conscience—has contributed to the creation and subsequent success of popular movies (e.g., American Psycho, Seven Psychopaths) and TV shows (e.g., Hannibal, Dexter). A Google search of the term *psychopath* returns over two and a half million results. The Library of Congress currently has a record of nearly 600 books pertaining to psychopathy with approximately half of these being published since the year 2000. Taken together, this information suggests that psychopathy is an extremely popular topic and may be one of the more recognizable terms from psychology and brain science.

Estimating the number of people in the U.S. population with psychopathy is often problematic; only a small percentage of people would meet the diagnostic criteria (Psychopathy Checklist-Revised). However, there is one personality disorder that is interrelated with psychopathy which allows for a more reliable estimate of the number of people affected by this condition. Antisocial Personality Disorder (APD), which is characterized by the Diagnostic and Statistical Manual for Mental Disorders (DSM-5; American Psychiatric Association, 2013) as having impairments in personality functioning, and the presence of pathological personality traits, a number of which can easily result in the harm of others, is estimated to afflict 1% of Americans over the age of 18 (Lenzenweger, 2007).

Although behavioral traits of APD and psychopathy can overlap, they are not the same disorder. Psychopathy takes into account the individual's personality and can be used as a predictor of recidivism (Blair, Mitchell, & Blair, 2010). The DSM-5 still requires the minimum age of 18 for a diagnosis of APD, although persons displaying antisocial and law-breaking behavior before this age may meet the criteria for Conduct Disorder (CD). CD is a diagnosis that only applies to children and adolescents; if diagnosed in adolescence, there is a stronger chance that antisocial behavior will not continue into adulthood (Herpertz

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et al., 2008). The fact that antisocial behavior can vanish after childhood perhaps reinforces the need to keep CD and APD as two separate disorders.

Even though the percentage of people who are considered to be psychopathic is very low, it is worth exploring why psychopathy continues to reappear every generation. Krupp, Sewall, Lalumiere, Sheriff, and Harris (2012) frame the argument for psychopathy as an adaptation because even though the brains of psychopaths are different, this does not necessarily mean there is dysfunction, especially if the increased behaviors resulting from brain differences enhance living and reproductive success. Psychopathy is currently defined by a set of behaviors. The diagnostic criteria for determining psychopathy examine specific behaviors and the frequency with which the individual is known to have *used* them. Here, I will explore lying and lack of empathy, two behaviors that are characteristic of psychopathy. Do these behaviors give the psychopath any real advantage in the world over the non-psychopathic?

2. A world of lies

On the surface, the benefits of lying are easy to hypothesize; a deception that will hopefully result in a personal benefit—eschewing blame (perhaps directing it at a personal enemy), coming into the possession of a desired item or piece of knowledge, or perhaps gaining the favor or trust of a desired individual. Evans and Lee (2013) found that children from the age of 42 months and onwards are capable of lying, and while there are good reasons for hoping that the frequency of a person's lies as they grow older will diminish, lying remains ever prevalent for people of all ages. There is no selection pressure against lying; it occurs naturally at a young age, and despite legal, cultural, or parental rules concerning the use of lies, it's a behavior that is here to stay. Should one be prone to lying, therefore, it is still easy to function, live, reproduce, and influence others.

Psychopaths are considered pathological liars (Cooke & Michie, 2001; Hare et al., 1990), which means that the frequency with which they lie is very high, and the act of lying is heavily engrained in their repertoire. Indeed, it is hard to determine the motivation behind the lies of psychopaths because they are inclined to lie so frivolously, almost as if it's *hard-wired* into their brain.

There is neurological evidence to suggest that pathological liars have at least one subtle difference in their brains compared to the non-pathological. Using the diagnositc criteria from the PCL-R and the DSM-IV for pathological lying, deceitfulness, and conning behavior, Yang et al. (2005) found that pathological liars have a 22–26% increase in pre-frontal white matter. White matter in the brain tends to facilitate neuronal communication because it insulates the axons of neurons, maintaining the integrity of biochemical signaling between cells. One can only guess why pathological liars have this increase in white matter, but it could be indicative of the high levels of brain power that it takes to lie and deceive (Bhatt et al., 2009; Ganis, Kossly, Stose, Thompson, & Yurgelun-Todd, 2003). Lying is a form of creation, and creation is hard work.

White matter develops and builds up in the frontal lobe during childhood and early adolescence (Fuster, 2002), and so this excess and the fact that it did not stop developing in the brains of pathological liars could be due to a developmental error. Indeed, the corpus callosum, a heavily myelinated structure that facilitates interhemispheric communication, usually grows relatively large but then 'trims back' in adulthood, but in the psychopathic it remains large (Raine et al., 2003), suggesting that the latter stages of brain development are hindered.

Lying, deliberate or accidental, harmful or innocuous, remains such a prevalent part of human discourse that psychopaths will continue to blend right in.

3. Empathy and dangerous behavior

The topic of empathy, the ability to share and understand the feelings and experiences of others, is currently split into two areas of research. Emotional empathy represents the capacity to share the feelings and emotions of another, for example feeling sorrow for an individual experiencing pain and suffering, and cognitive empathy, which represents being able to 'put yourselves in the shoes' of others (Dehning et al., 2013). These two types of empathy no doubt reinforce each other because recreating the feelings of others could bolster our attempts to see and understand their point of view, and vice versa.

Theoretically, empathy should reinforce morality and aid in the construction of our worldview. If we can feel and experience something close to the experience of a person (or animal) that we are witnessing in a specific scenario, we can make judgments over whether or not the experience is good or bad, and then forecast whether or not the experience should continue or what the consequence could be if it does continue. This might prompt you to help stymie or ease a person's suffering or prolong their pleasure. However, this system is far from perfect, because perhaps we are recreating the wrong feelings or misunderstanding the situation. On the whole, though, it provides us with a *in-built* radar to help other people. A lack of empathy, both emotional and cognitive, would deny a person a crucial social means of understanding others. If you can't understand or feel that another person is in pain, then you may not be motivated to ease their suffering.

Psychopaths have little to no empathy. Not only is it hard for psychopaths to feel the full range of emotions of the non-psychopathic, but it is hard for psychopaths to even use affective words in an accurate and meaningful context (Hare, 1999). This has been supported, neurologically, by Kiehl et al. (2001), who found that when psychopaths were presented with affective words, the regions in the brain known to respond to the persevance of these words became minimally active when compared to non-psychopathic criminals and healthy civilians. These regions included the amygdala and the hippocampus, the parahippocampal gyrus, the ventral striatum, and the anterior cingulate cortex, all regions involved in experiencing emotion.

There are other disorders, too, where the affected individual demonstrate reduced empathy, such as autism (Baron-Cohen, 2011). But crucially autistic individuals do not pose a threat to others, unlike psychopaths. So why the difference? What else is present in the life of the psychopath that could foster dangerous behavior?

Those with psychopathy and antisocial personality disorder have a lower resting heart rate (Gottman et al., 1995; Sijtsema et al., 2010), and because of this it has been hypothesized by Scarpa and Raine (2006) that the antisocial are likely to engage in risky behaviors to cause an elevation in heart rate. If the autonomic functioning of heart rate results in a continually low beat, it could be uncomfortable and frustrating, making it difficult to experience excitement and joy. In order to accelerate the heart therefore, the psychopath has to engage in an extreme and risky act. The exhilaration from criminal behavior could be one manner of achieving this, and with no empathy it would not matter to the psychopath if the risky behavior put somebody else at risk, in fact, the act might even be done for this very purpose.

APD is also often comorbid with drug and alcohol use (Rounsaville, Weissman, Kleber, & Wilber, 1982; Sher & Trull, 1994; Van den Bree, Svikis, & Pickens, 1998). Cocaine use can have a powerful effect on the heart, causing an increase in heart rate (Ehrman, Robbins, Childress, & O'Brien, 1992; Tazelaar, Karch, Stephens, & Billingham, 1987), and is known to encourage euphoria by increasing levels of extracellular dopamine in the mesolimbic pathway (Ikegami & Duvachelle, 2004). The affects of cocaine use have universal appeal, but an individual with APD or psychopathy is especially drawn to it, especially if it is causing an acceleration in heart rate. Cocaine use plus a presdisposition for high risk behaviors could also help to further stamp the behavior into the psychopath's repertoire because of the reinforcing euphoric feelings of the cocaine.