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A broader view of psychopathy

New findings show that people with psychopathy have varying degrees and types of the condition

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Psychopath. It is a term that tends to conjure images of violent criminals or public figures capable of heinous or egregiously selfish acts on a broader scale.

Yet the reality of this condition is far more nuanced than these stereotypes hold. While it is true that people with the condition display a range of disconcerting tendencies—including low empathy and remorse, grandiosity, impulsivity, and sometimes aggressive or violent behavior—new findings show

not only that people with psychopathy have varying degrees and types of this condition but that the condition and its precursors can be treated.

"Psychopathy is a condition that causes people to do things that reduce our compassion for them, and so there's a resistance to funding and treating it," said Georgetown University psychologist and neuroscientist Abigail Marsh, PhD, who studies psychopathy and is cofounder of PsychopathyIs (https://psychopathyis.org/), an organization that promotes awareness of the condition and provides support and resources for affected families. "But as a scientific community, we have to recognize that psychopathy has all the hallmarks of a true disorder and that all of us will be better—the people who are affected, their families, and the broader community—if we take it seriously."

In fact, it is common to have some degree of psychopathic tendencies, if not the condition itself: According to PsychopathyIs, as much as 30% of the population displays some degree of reduced empathy, risk-taking, and overly high self-regard, though the percentage of people with high degrees of these traits is much smaller. In this sense, Marsh believes that autism holds a useful parallel, because there are greater and lesser degrees of autistic traits and because early intervention can make a big difference in later outcomes. (Not everyone in the mental health community agrees that psychopathy is a spectrum-based disorder.)

"My hope," said Marsh, "is that the development of interventions and therapy for people with psychopathy will follow the same ultimate trajectory that is taking place for people with other spectrum-based disorders like autism."

What is psychopathy?

About 1.2% of U.S. adult men and 0.3% to 0.7% of U.S. adult women are considered to have clinically significant levels of psychopathic traits. Those numbers rise exponentially in prison, where 15% to 25% of inmates show these characteristics (Burton, B., & Saleh, F. M., *Psychiatric Times* (https://www.psychiatrictimes.com/view/psychopathy-insights-general-practice), Vol. 37, No. 10, 2020). That said, psychopathy spans socioeconomic status, race, gender, and culture, and those who score high on psychopathy scales range from high-functioning executives to prison inmates to people whose

psychopathic symptoms may reflect difficult life circumstances more than anything else.

"In any culture you visit, you can describe the key personality features of someone with psychopathy and ask, 'Are there people like this in your society?'" Marsh said. "And they will say, 'Oh, yeah.' But the way that these traits are interpreted by people and the way that they manifest in behavior—that can be extremely variable."

For these and other reasons, the mental health community has not had an easy time homing in on a uniform definition of psychopathy. For decades, its symptoms were examined in two very different populations: people in criminal or forensic settings and people in inpatient or community mental health settings. These groups had somewhat different characteristics, which led to different ways of conceptualizing and assessing psychopathy, said Florida State University psychologist Chris Patrick, PhD, who studies and has written extensively on the condition.

To add to the complexity, psychopathy is not a diagnostic category in the Diagnostic and Statistical Manual of Mental Disorders (DSM-V)—one reason the area tends to be both underfunded and undertreated, Marsh added. In part, that is due to earlier disagreements in the field: Some of those studying the disorder worried that a psychopathy diagnosis would stigmatize people too much, while others were concerned that clinicians would have difficulty in accurately assessing traits like callousness or cruel or indifferent disregard of others. So, although psychopathy was included in the first two editions of the DSM, it was replaced in the third edition by antisocial personality disorder (ASPD), which focuses mainly on the behavioral aspects of psychopathy, such as aggression, impulsivity, and violations of others' rights, but only minimally on personality characteristics like callousness, remorselessness, and narcissism. As a result, only about a third of those diagnosed with ASPD also meet the criteria for psychopathy, according to research using validated scales, which often leads to confusion over how and if the two conditions are related, Marsh noted.

At present, the closest DSM-V diagnosis to psychopathy is a youth diagnosis of conduct disorder with the addition of so-called "callous unemotional" (CU) traits, which manifest as a lack of guilt and remorse, a callous lack of empathy,

a lack of concern about one's performance on important activities, and a general lack of emotional expression, said Louisiana State University psychologist Paul Frick, PhD, a member of the DSM-V work group that developed those criteria. In the DSM-V, this diagnosis is known as "conduct disorder with a 'limited prosocial emotion' specifier."

Given these varying factors, researchers are working to further clarify the nature of psychopathy by analyzing commonalities and differences between and among individuals in different settings, between assessment instruments, and across studies, and they are studying if and how children with the DSM-V specifier are at risk for psychopathy. Again, this newer line of thinking views psychopathy on a spectrum—as a set of traits that varies continuously throughout the population.

One effort to coordinate thinking in the field is Patrick's "triarchic model," which posits three separable trait constructs underlying psychopathic symptoms: "disinhibition," which includes tendencies toward impulsiveness, irresponsibility, difficulty regulating one's emotions and behavior, and mistrust of others; "meanness," which involves deficits in empathy, contempt toward and inability to bond with others, and predatory exploitativeness; and "boldness," which includes dominance, social assurance, emotional resilience, and adventurousness. Each of these traits has unique developmental features and neurobiological correlates. Patrick developed the Triarchic Psychopathy Measure to assess these trait constructs (*Development and Psychopathology* , Vol. 21, No. 3, 2009 (https://www.cambridge.org/core/journals/development-and-psychopathology/article/abs/triarchic-conceptualization-of-psychopathy-developmental-origins-of-disinhibition-boldness-and-meanness/172BC63ED5C4C4C295C47DDCB01E838D) ; *Journal of Personality* , Vol. 83, No. 6, 2015 (https://onlinelibrary.wiley.com/doi/10.1111/jopy.12119)).

Because boldness, meanness, and disinhibition are separable, the triarchic model opens the door to understanding psychopathic symptoms in more flexible and nuanced ways and to a framework for integrating research that employs different theories and assessment instruments, Patrick said. In addition, the model suggests the possibility of identifying and studying subtypes of psychopathy involving different configurations of traits—for example people who display a "bold-disinhibited" style versus a "mean-

disinhibited" one—and identifying neurobiological processes that relate to each subtype.

"If we can connect findings from different studies through reference to a common set of psychological dimensions, we can be more effective in identifying neurophysiological and behavioral factors that contribute to different expressions of psychopathy," said Patrick. "And that synergy, that harmonization of efforts, can lead to new ways of thinking and to assessment methods that are more precise and less crude and redundant."

What drives psychopathy?

Increasingly, researchers are learning more about factors that may spur on psychopathy neurobiologically, genetically, environmentally, and behaviorally.

That work suggests that the warning signs for psychopathy are often present early. Frick, for example, has studied thousands of preschoolers, school-age kids, and juvenile offenders in the United States and abroad. He and colleagues have demonstrated that compared with youngsters who have conduct disorder alone, those with added CU traits—the "limited prosocial specifier" in the DSM-V—are more likely to demonstrate deficient emotional responding to fear and distress in others as well as more severe and planned aggression. These youngsters are also more likely to continue showing aggressive and antisocial behavior as adults, including psychopathic traits (*Psychological Bulletin* (https://pubmed.ncbi.nlm.nih.gov/23796269/) , No. 140, No. 1, 2014).

However, "these kids are not destined to be psychopaths—in fact, the vast majority will not be," said Frick. "However, if you have a public health problem like psychopathy, and you have early indicators for risk, it is critical to implement early interventions designed to prevent this outcome."

A range of studies show that brain and neurological abnormalities may help to explain some of these symptoms. Among the findings are that the amygdala—an important emotion-processing structure in the brain—is smaller in people with psychopathy than it is in typically developing individuals and that it has deformities in various regions. Those with psychopathy or its precursors also show reduced activity in the amygdala and related regions of the brain and greater neural responsiveness in regions associated with reward-processing

and cognitive control when performing tasks involving moral-processing, decision-making, and reward, suggesting that the neural processes that support moral evaluations in people with psychopathy somehow differ from those of typically developing individuals.

Recent studies with twins and adopted children indicate that there may be a strong genetic component to the condition as well. University College London (UCL) psychologist Essi Viding, PhD, and colleagues have found that disruptive behavior plus CU traits in children are moderately to highly heritable. But these studies also capture the important potential effects of the environment on antisocial behavior, according to a review article by Viding and E. J. McCrory, PhD, also of UCL, in *Psychological Medicine* (https://doi.org/10.1017/S0033291717002847) (Vol. 48, No. 4, 2018).

A study in the *American Journal of Psychiatry* (Vol. 173, No. 9, 2016 (https://ajp.psychiatryonline.org/doi/10.1176/appi.ajp.2016.15111381)) underscores just how influential the environment can be. University of Michigan psychologist Luke W. Hyde, PhD, and colleagues tracked 561 children adopted during early infancy. Children whose biological mothers reported a greater history of severe antisocial behavior were much more likely than those whose biological moms did not report such a history to exhibit CU traits at 27 months —evidence for the heritability of CU traits.

However, the more that children's adoptive mothers used positive reinforcement at 18 months, the less likely the children were to develop CU behaviors at 27 months. Moreover, highly positive adoptive parents were able to buffer genetic risk in their children almost entirely.

"So even if a kid has a very antisocial parent and was at a very high genetic risk, they can knock out that risk if their adoptive parent is very high on positive reinforcement," Hyde explained. The findings "provide strong evidence that nature and nurture matter," he added, "and that the right parenting-focused interventions may significantly reduce the risk of early warning signs of future antisocial behavior."

In recent years, researchers have also identified a second group of youth with traits that look like precursors to psychopathy—those who display anger,

hostility, and emotional volatility after experiencing serious traumas. That condition is sometimes called "secondary psychopathy."

"The idea is that they were not born at particularly high risk for psychopathy," Marsh explained, "but that truly terrible life experiences caused their development to go awry. You tend not to see the fearless temperament in those kids but rather a lot of emotional dysregulation and anxiety."

While more research is needed on this group, it appears to be an important area for further study, added James Blair, PhD, a prominent researcher of psychopathy and director of the Center for Neurobehavioral Research at Boys Town in Nebraska. Blair says he was initially unconvinced that there could be such a group but that a brain-imaging study he and colleagues conducted convinced him otherwise (*Social Cognitive and Affective Neuroscience* , Vol. 16, No. 10, 2021 (https://academic.oup.com/scan/article/16/10/1091/6271345)).

"We showed that there were some kids who had been traumatized and were presenting with CU traits but who had a high response to threat," as opposed to the blunted affect of nontraumatized peers with CU tendencies, Blair said. The findings speak to the importance of tailored approaches: He would like to see treatments that "differentiate clinically between kids with conduct disorder who have high threat-responsiveness and decision-making impairments, for example, from others who have low threat-responsiveness but maybe also decision-making impairments," he said.

Real-world effects

Other psychology researchers are studying how these brain and neurological problems might influence behavior in adults, particularly disinhibited or criminal behavior. They, too, are showing that tailored approaches hold significant promise.

Yale University psychologist Arielle Baskin-Sommers, PhD, and members of her Mechanisms of Disinhibition Lab, for instance, are running brain and behavioral studies looking at how adults with psychopathy and ASPD process information in ways that can lead them into trouble.

Their research shows that both groups process information in problematic ways, but that faulty processing is different for each group. For people with ASPD, information-processing difficulties emanate from problems in executive functioning—which involves inhibition, planning, abstract reasoning, and working memory—especially when these individuals are responding to situations that involve rewards or emotional information. "So, they might commit antisocial acts because they have difficulty planning ahead—they have difficulty stopping once they get going with something," Baskin-Sommers explained.

For people with psychopathy, however, difficulties begin earlier in the information-processing stream. They display what Baskin-Sommers calls an "exaggerated attention bottleneck," or difficulty filtering information when it first comes in. In essence, "people with psychopathy become so myopically focused on one small part [of their attentional field] that their brain processes the rest of the information too slowly to inform the next step," she said.

An example is Robert Durst, the real-estate heir who was convicted of murder in 2021 and died in custody in January. At one point, he was on the run from police for killing his landlord with $30,000 in his car and $900 in his pocket. But impulsively, he decided he was hungry, so he parked his car, entered a Wegmans supermarket, stole a hoagie, and, predictably, got caught.

"In that moment, his goal—for whatever reason—was to get that hoagie," said Baskin-Sommers. In the meantime, he completely ignored all the other cues, including the large amount of money he was carrying, the security cameras throughout the Wegmans, and his high risk of getting caught. "Because of this kind of attentional abnormality," she said, "it was likely much harder for him to integrate all of these other pieces that most of us naturally would integrate pretty quickly."

To help people who exhibit attentional abnormalities related to psychopathy and ASPD, Baskin-Sommers and her team are designing video games that target the problematic information-processing issues within each group. For people with psychopathy, the games help them integrate the information they need to succeed at the game, for example by encouraging them to focus on the goal but at the same time notice details on the face of a person or on background cues that tell them how to respond or not at a given moment. For

individuals with ASPD, the aim is to help them engage their executive functioning and not become overwhelmed by motivational or emotional cues, for example by encouraging them to pause before pursuing a reward. (The games are currently for research purposes only.)

Those who received the correctly matched training improved not only on the games themselves but on related experimental tasks as well (*Clinical Psychological Science* , Vol. 3, No. 1, 2015 (https://journals.sagepub.com/doi/full/10.1177/2167702614560744)). Baskin-Sommers also has preliminary data showing that inmates with psychopathy who received the training had fewer disciplinary problems afterward, and that people with ASPD in community samples had fewer days of substance use and higher rates of outpatient treatment use than those who did not take the training.

The games could serve as a primer for other therapies shown to be effective for people with self-regulation difficulties, Baskin-Sommers added. "We need to correct the lens through which they are seeing the world before they can engage in more traditional therapies," she said.

Promising treatments

Treatment for adult offenders with psychopathy has not been easy or very successful—perhaps because interventions have not targeted the right problems, as Baskin-Sommers' research suggests. However, a few investigators are showing positive results with adult offenders with psychopathy. For example, in a randomized controlled trial of 103 violent inmates with personality disorders including psychopathy, psychologist David P. Bernstein, PhD, of Maastricht University in the Netherlands, and colleagues found that patients who took part in 3 years of either treatment as usual or a treatment called schema therapy—which focuses on addressing patients' unmet emotional needs, such as attachment issues, and on helping them moderate extreme emotional states—all showed significant improvements in symptoms and moved quickly through rehabilitation compared with baseline measures. But those who received schema therapy did particularly well, the team found (*Psychological Medicine* , online first publication, 2021 (https://www.cambridge.org/core/journals/psychological-medicine/article/schema-

therapy-for-violent-pd-offenders-a-randomized-clinical-trial/A6A8E0C8E512EFF14D50B98A798A3C71)).

Interventions for children have been more promising, but they, too, have shown limitations. A main type of intervention is behavioral parent training, targeted to children with conduct disorder in general. While children with conduct disorder and CU improve somewhat in these programs, they still end up worse than those with conduct disorder alone, studies show.

Research by University of Sydney psychologists David J. Hawes, PhD, and Mark R. Dadds, PhD, and colleagues suggests why this might be the case. While children with CU traits seemed to improve in relation to program aspects that teach parents to reinforce and reward positive prosocial behavior, they did not respond as well to the treatment aspects that teach parents how to consistently punish their children with strategies like timeouts. That finding is in line with Hawes and Dadds' research showing that these youngsters are less influenced by threats of punishment (*Journal of Consulting and Clinical Psychology* , Vol. 73, No. 3, 2005 (https://psycnet.apa.org/record/2005-06517-003)).

Frick and Eva Kimonis, PhD, of the University of New South Wales in Australia, have drawn on these insights to tailor a widely used type of behavioral parenting training called Parent-Child Interaction Therapy (PCIT) to better address the needs of young children with elevated CU traits. This 21-session modified version, called PCIT-CU, teaches parents how to emphasize positive reinforcement to change a child's behavior, how to be warmer and more responsive in their parenting, and how to coach their children to pay attention to other children's emotions. "It emphasizes a lot of in-session coaching that allows the parents to practice the skills with the child in session," Frick explained.

In an open clinical trial of 23 parents and their children ages 3 to 9, the team found highly significant reductions in CU traits and conduct problems and highly significant increases in empathy across five assessment points, starting before treatment, following children through different phases of treatment, and ending at 3 months after treatment completion. Next, they hope to conduct a

larger randomized controlled trial comparing children who receive the standard treatment with those who receive the modified version.

For teens, group treatments tend to be the standard approach. A successful example is Boys Town, a residential campus near Omaha, Nebraska, with satellite programs in nine other sites across the country. There, children and teens with a variety of behavioral, psychological, emotional, and family-based problems live in homes with trained married couples known as Family-Teachers. While Boys Town is not focused exclusively on youth at risk for psychopathy, the program shows significant reductions in CU traits, said Blair.

Another successful program is the Mendota Juvenile Treatment Center, a residential facility in Madison, Wisconsin, that provides mental health treatment to juvenile offenders deemed by the state to be too unruly or aggressive to be housed in traditional correctional centers. The center's philosophy is that treatment should promote healthy emotional development and socialization—not just needed skills. Youth in this program showed less than half the recidivism rates of a comparison group, and the program produced benefits of $7.18 for every dollar of cost, according to an evaluation by psychologist Michael F. Caldwell, PsyD, and colleagues (*Journal of Research in Crime and Delinquency* , Vol. 43, No. 2, 2006 (https://journals.sagepub.com/doi/pdf/10.1177/0022427805280053)).

Collectively, these findings suggest that those with or at risk for psychopathy need more than single-dose therapy. Rather, therapy needs to be both correctly tailored to the problems the person is facing and of sufficiently long duration to ensure that changes stick, Viding said. For children, "we almost need to think of it in terms of an inoculation and booster shots," she said.

She added that this work is important not just for public health reasons but for humanistic ones as well. "We know that early-onset antisocial behavior and psychopathic features are associated with a host of poor mental and physical health outcomes," including difficulty forming relationships, poor educational outcomes, poor health, and early death, she said. "So, an integral part of addressing this picture is changing people's attitudes and concern for these children so that they are allocated the attention and the help that they deserve."

Further reading

Parent-Child Interaction Therapy adapted for preschoolers with callous-unemotional traits: An open trial pilot study (https://pubmed.ncbi.nlm.nih.gov/29979887/)
Kimonis, E. R., et al., *Journal of Clinical Child and Adolescent Psychology* , 2018

Understanding the development of psychopathy: Progress and challenges (https://pubmed.ncbi.nlm.nih.gov/29032773/)
Viding, E., & McCrory, E. J., *Psychological Medicine* , 2018

CE credits

CE credits : 1

Learning objectives : After reading this article, CE candidates will be able to:

1. Describe traits of psychopathy and understand how psychopathy differs from antisocial personality disorder.
2. Discuss the precursors to psychopathy and what researchers do not yet know about the condition.
3. Describe the state of treatment for adults, youth, and children.

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