



LAWYER ELIAS TOUFIC TOHME

LLB. PgCert. PgDip.

LLM

MANAGING PARTNER
TOHME LEGAL

e@tohmelegal.com

www.tohmelegal.com

The Gender Gap in Criminal Offending

[An Analysis of Biological, Psychological, and Biosocial Explanations in Criminology](#)

Executive Summary

The gender gap in criminal offending remains one of the most consistent findings in historical and contemporary criminology. Across various cultures, time periods, and legal systems, males commit significantly more crimes, particularly violent crimes than females. This research paper evaluates whether this disparity stems primarily from biological mechanisms or psychological variations, ultimately highlighting the contemporary consensus: **a biosocial framework** where biological predispositions interact continuously with psychological traits and socialization patterns.

1. Institutional Data and the Gender Disparity

Statistical data uniformly demonstrates that men **commit a disproportionate share of offenses**. According to global metrics such as United Nations Office on Drugs and Crime (UNODC) reports and national data like the FBI's Uniform Crime Reporting (UCR) program, males account for **approximately 80–90% of arrests for violent crimes globally, including homicide and armed robbery**. While the gap narrows slightly for property crimes and drug offenses, the male-to-female ratio remains heavily skewed across all serious legal infractions.



2. Biological Factors in Criminal Offending

Biological theories suggest that physical, hormonal, and evolutionary differences inherently predispose males to higher baseline rates of aggression and risk-taking behavior.

Hormonal Variations and Testosterone

Testosterone, an androgenic hormone present in significantly higher levels in males, is heavily linked to competitiveness, dominance-seeking behavior, and low impulse control. Endocrinological research demonstrates that while testosterone does not directly 'cause' crime, it lowers the threshold for aggressive responses to external provocations or environmental stressors.

Neurobiological and Brain Development Differences

Neurological studies show distinct differences in brain structure and maturation rates between sexes. The prefrontal cortex, which governs executive function, long-term planning, and impulse regulation, tends to mature later in males (often continuing into the mid-20s) than in females. Concurrently, the amygdala—the brain's emotional and threat-processing center—exhibits differences in volume and reactivity, which can result in more volatile behavioral outbursts in young males.

Evolutionary Psychology Perspectives

From an evolutionary standpoint, male aggression is often contextualized through intra-sexual competition. Historically, male reproductive success depended heavily on securing resources, status, and dominance, which frequently required physical confrontation or high-stakes risk-taking. Females, conversely, historically assumed higher physiological costs related to child-rearing, favoring risk-averse behavior to ensure offspring survival.

3. Psychological Factors and Personality Trait Disparities

Psychological explanations focus on internal cognitive models, emotional regulation strategies, and personality trait distributions that differ statistically between genders.

The Big Five Personality Framework

Psychological testing across cultures indicates distinct gender variances within the Big Five personality traits:

- **Agreeableness:** Females generally score significantly higher in agreeableness, encompassing empathy, altruism, and compliance, which serve as natural psychological barriers against anti-social and criminal conduct.



- **Neuroticism and Emotionality:** While females report higher levels of internalizing neuroticism (leading to anxiety or depression), males show a greater tendency toward externalizing behaviors, translating psychological distress or anger outward into physical action.
- **Conscientiousness and Impulsivity:** Lower average baseline levels of constraint and sensation-seeking traits in adolescent males strongly correlate with early-onset delinquency.

Empathy and Cognitive Processing

Developmental psychology indicates that females, on average, develop higher levels of affective empathy earlier in life. Affective empathy allows an individual to feel the distress of a potential victim, acting as a powerful internal deterrent to causing harm. Males are statistically overrepresented in clinical conditions marked by severe empathy deficits, such as Conduct Disorder (CD) in youth and Antisocial Personality Disorder (ASPD) in adulthood.

4. The Biosocial Synthesis: Interaction of Nature and Nurture

Modern legal scholarship and criminology reject a strict binary division between biological and psychological factors. Instead, they favor a biosocial model, which emphasizes that biological predispositions (like high testosterone or a late-maturing prefrontal cortex) are heavily mediated by psychological traits and social environment.

Key Interacting Factors Overviews

Dimension	Primary Male Elements	Primary Female Elements
Biological / Hormonal	Higher testosterone levels; delayed prefrontal cortex maturation (up to mid-20s).	Lower testosterone levels; earlier executive function and prefrontal development.
Psychological Traits	Higher baseline impulsivity; sensation-seeking; higher rates of externalizing behaviors.	Higher average agreeableness and affective empathy; internalizing stress management.
Evolutionary Drivers	Intra-sexual competition for status, resources, and reproductive dominance.	Risk aversion strategies focused on maternal survival and offspring protection.

5. Legal and Policy Implications

Understanding these underlying variables allows legal institutions to adapt from purely punitive measures toward targeted prevention. Recognizing that young males have biologically driven deficits in impulse control has heavily influenced juvenile justice reforms, leading courts to treat young offenders with a focus



on rehabilitation rather than absolute retributive sentencing. Furthermore, psychological screening for risk-seeking and low-empathy traits enables early behavioral intervention before legal boundaries are crossed.

Conclusion

In conclusion, the overrepresentation of male criminals is neither exclusively biological nor purely psychological; it is an intersection of both. Biological factors establish the neurochemical and evolutionary foundations for risk-taking and physical reactivity, while psychological profiles and structural socialization determine whether those tendencies manifest as criminal behavior or are redirected into prosocial societal avenues.

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