

Wade C. Myers,¹ M.D.; David S. Husted,² M.D.; Mark E. Safarik,³ M.S.; and Mary Ellen O'Toole,³ Ph.D.

The Motivation Behind Serial Sexual Homicide: Is It Sex, Power, and Control, or Anger?*

ABSTRACT: Controversy exists in the literature and society regarding what motivates serial sexual killers to commit their crimes. Hypotheses range from the seeking of sexual gratification to the achievement of power and control to the expression of anger. The authors provide theoretical, empirical, evolutionary, and physiological support for the argument that serial sexual murderers above all commit their crimes in pursuit of sadistic pleasure. The seeking of power and control over victims is believed to serve the two secondary purposes of heightening sexual arousal and ensuring victim presence for the crime. Anger is not considered a key component of these offenders' motivation due to its inhibitory physiological effect on sexual functioning. On the contrary, criminal investigations into serial sexual killings consistently reveal erotically charged crimes, with sexual motivation expressed either overtly or symbolically. Although anger may be correlated with serial sexual homicide offenders, as it is with criminal offenders in general, it is not causative. The authors further believe serial sexual murderers should be considered sex offenders. A significant proportion of them appear to have paraphilic disorders within the spectrum of sexual sadism. "sexual sadism, homicidal type" is proposed as a diagnostic subtype of sexual sadism applicable to many of these offenders, and a suggested modification of DSM criteria is presented.

KEYWORDS: forensic science, serial murder, sexual homicide, sadism, paraphilia, aggression, violence, sex offender

Listen to the patient. He is trying to tell you what is the matter with him. (William Osler, M.D., 1849–1919)

A 13-year-old girl is abducted. Her hidden body is found a week later hidden in a pond one-half mile from her home. Soon thereafter a serial offender is charged with her abduction, sexual assault, and murder. The youth pastor from her church meets with a reporter and laments, "She didn't deserve this . . . I will always have that question: Why?" His puzzlement is captured on the front page of the local paper (1).

A month later another serial killer is caught in the same metropolitan area. He is charged with drugging, raping, and killing multiple gay men. Shocked neighbors described him as a volunteer mentor to youth organizations, a gregarious handyman who was always ready to help his neighbors, and an animal lover who rescued critters from the pound. He had received an award for his work over the years with children and had no history of arrests. A neighbor framed the struggle the neighbors faced in trying to reconcile this Dr. Jekyll-Mr. Hyde paradox in their midst: "It's just two different people. It had to be, inside his head, living two different lives." Another neighbor lamented she did not report hearing occasional nighttime screams coming from the killer's home for years. One survivor, who woke up on the floor naked and was unable to walk because of leg pain, had ink marks on his nipples and his injuries indicated he had been bound with ligatures, burned, shaved, and hung upside down. A friend and accomplice

after the act admitted he and the perpetrator swapped sexual fantasies online that involved making "submissives" disappear (2).

Serial sexual murderers have killed three or more victims in a noncontinuous fashion using a predatory form of violence (3), although some authors now suggest "serial" applies if there has been a minimum of two victims (4). Expression of sexual interest is evident at the crime scene, either overtly or symbolically (e.g., through rape, presence of semen, disrobing of the victim, sexual posing of body).

Controversy among professionals and laypersons exists over what motivates these offenders to commit their crimes. From a historical perspective spanning centuries, writers commonly referred to the sexual thrill, even intoxication, these killers experienced during their crimes as explanatory (5). More recently, other hypotheses have arisen that suggest the attainment of power and control over victims or the expression of anger toward them, rather than sexual satisfaction, are primarily responsible. The authors will address these various premises and argue that such crimes are mainly propelled by the drive for sexual gratification like other perversions.

Studies Addressing Motivation

One motivational hypothesis purports the crimes of serial sexual killers are in response to a need to achieve power and control over victims with sexual gratification secondary (6,7). This line of reasoning is similar to that of Groth et al. (8), who reported the same principle motivation for rape, namely the attainment of power and control. Regarding rape specifically, Thornhill and Palmer (9) discounted the power-control theory and argued from an evolutionary perspective that rape is a sexually motivated behavior. Furthermore, rape in essence cheats the mating process by allowing males to increase their chances of reproductive success with minimal investment (e.g., avoiding the expenditure of time and resources related to childrearing).

Although a plausible evolutionary basis for serial sexual homicide is currently lacking, certain troubling questions nonetheless arise if one attempts to understand this behavior, or rape for that

¹Forensic Psychiatry Program, Department of Psychiatry and Behavioral Sciences, University of South Florida, Tampa, FL 33612.

²Department of Psychiatry, University of Florida, Gainesville, FL 32611.

³Critical Incident Response Group, Behavioral Analysis Unit, FBI Academy, Quantico, VA 22135.

*This work was presented as a poster at the FBI's "Serial Murder Symposium" in San Antonio, Texas, on August 29, 2005, and also at the 36th Annual Meeting of the American Academy of Psychiatry and the Law in Toronto, Canada, on October 29, 2005.

Received 24 Aug. 2005; and in revised form 27 Nov. 2005; accepted 31 Dec. 2005; published 21 June 2006.

matter, as nonsexual in etiology. For example, if this behavior was for the main purpose of satisfying a need to achieve domination over women, or men in the case of the homosexual or bisexual killer, then why is there always a sexual component with the offender often reaching orgasm? Likewise, if the aim is not primarily sexual, then why do the offenders' victims nearly always consist of the gender they are sexually attracted to rather than being equally distributed between men and women? Should not an equal number of both sexes be targeted by any given offender in satisfying this need for power and control over others if it is nonsexual in origin? Studies have confirmed that young, reproductive-aged females are overrepresented as victims of rape murder relative to nonreproductive-aged females (10,11). This logic concerning victim gender distribution as supportive of a sexual motivation hypothesis applies equally well to the anger motivation hypothesis discussed next.

Proponents of an anger motivation hypothesis purport that sexual murderers regularly commit their acts in response to anger or rage against women (12), or at least when in a mixed state of sexual arousal and anger (13). In this latter study, only four of the 13 (30%) serial sexual killers were rated as driven purely by the quest for sexual release. In the Beauregard and Proulx (12) sample of 36 sexual murderers (they were not serial murderers), 55% reportedly committed their acts in a "fit of rage," the Anger Pathway group, whereas the remainder committed crimes they enjoyed or that sexually aroused them (they experienced a "positive affect" during their crimes), the Sadistic Pathway group. (Of note, the characteristics of these two groups appear to closely parallel Douglas et al.'s (14) Disorganized vs. Organized dichotomy.) Curiously, 79% in the Anger group had sexual intercourse with their victims, slightly more than the 77% who did so in the Sadistic group. Can one truly achieve an erection and engage in sexual intercourse while in a fit of rage? This question will be addressed in an upcoming section on the physiology of sexual arousal.

Media commentators commonly refer to the "anger" and "rage" these perpetrators must have felt to commit such atrocious and destructive crimes. What is meant by these terms? The Merriam-Webster Dictionary (15) defines anger as, "(1) a strong feeling of displeasure and usually of antagonism; (2) rage." Rage is defined as, "(1) violent and uncontrolled anger; (2) a fit of violent wrath." Likewise, Merriam-Webster explains the synonyms for anger (ire, rage, fury, wrath, etc.) mean an "intense emotional state induced by displeasure." These definitions of anger and rage hinge upon the foundation of an *unpleasant* emotion state. Thus, from a semantic standpoint, an anger motivation hypothesis by definition asserts serial sexual killers' acts are committed in a state of displeasure, or at least partly so.

Many authors support the traditional sexual motivation hypothesis that proposes serial sexual killers are driven by the pursuit of sexual pleasure during their acts (16,17). Krafft-Ebing referred to these crimes as lust murders ("lust," according to the Merriam-Webster Dictionary, refers to "intense or unbridled sexual desire"). Consistent with the sexual motivation hypothesis is the common finding of violent sexual fantasies associated with masturbation and daydreaming in these offenders (18,19). Variations of this sexual pleasure hypothesis theme would include crimes committed in the context of erotic thrill-seeking combined with a lack of empathy (20), or the attainment of sadistic euphoria through torturing or killing (21–23). In the words of Brittain (21), "... cruelty may not be the end so much they are seeking as the means whereby they arouse extreme sexual emotion in themselves and it is the relief of sexual tensions which is their true aim ... these are essentially sexually motivated crimes." Masters and

Lea ((5), p. 162) considered the anger theme in these crimes, and responded by saying the sadistic offender "... need not hate that person [the victim] any more than any other kind of pervert needs to hate his sex-partner."

Such data supporting a sexual motivation hypothesis are not limited to adult populations. In a series of 16 juvenile sexual homicide perpetrators, Myers (24) found 92% experienced erections and 56% ejaculated at the crime scene.

Motivation and Diagnosis

The motivational forces at work in serial sexual killers can be indirectly assessed through their psychiatric diagnoses. Most serial sexual killers are believed to have at least some degree of sexual sadism (25–28). Krafft-Ebing (16) defined sadism as follows (emphasis added by authors):

Sadism is the experience of sexual[ly] pleasurable sensations, including orgasm, produced by acts of cruelty . . . It may also consist of an innate desire to humiliate, hurt, wound or even destroy others in order thereby to create *sexual pleasure* in one's self.

Over 100 years later, we see that our present definition of sexual sadism as defined in DSM-IV-TR has not fundamentally changed from Krafft-Ebing's precursor term "sadism" (his historic definition of "sadism" is the equivalent of what we now refer to as "sexual sadism"). A diagnosis of sexual sadism requires (emphasis added by authors):

Over a period of at least six months, recurrent, intense sexually arousing fantasies, sexual urges, or behaviors involving acts (real, not simulated) in which the psychological or physical suffering (including humiliation) of the victim is sexually exciting to the person.

Neither the original Krafft-Ebing definition nor the DSM criteria mention power and control or anger as elements of sexual sadism. Instead, these definitions speak to the sexually exciting qualities inherent in cruelty and the suffering of others. Likewise, the Merriam-Webster dictionary defines sadism as, "A sexual perversion in which gratification is obtained by the infliction of physical or mental pain on others."

Perhaps the most valid method for determining the motivation of serial sexual murderers is through their self-reports—provided one is confident their renditions are genuine and have not been influenced by external or other factors. Such empirical data on what propelled them during their acts commonly implicate a state of sexual arousal and excitement. This observation has been documented for centuries. Some historical and modern examples from various countries are provided for illustration.

Case Examples of Serial Sexual Murderers

1. Gilles de Rais, a 15th-century French nobleman, was accused of kidnapping, torturing and murdering hundreds of children, primarily boys. He reported that he gained "inexpressible pleasure" from his sadistic acts and explained, "I did and perpetrated them following [the dictates] of my imagination and my thought, without the advice of anyone, and according to my own judgment and entirely for my own pleasure and physical delight, and for no other intention or end" (16,29).
2. Andreas Bichel, in the beginning of the 19th century in Bavaria, ravished, killed and dissected girls. At his trial he remarked, "I may say that during the operation I was so eager, that I trembled all over, and I longed to rive off a piece and eat it" (30).
3. The 19th-century Italian criminologist and psychiatrist Lombroso described the case of a man named Phillipe who stran-

- gled prostitutes after having sex with them. Phillipe explained his crimes in this way: "I am fond of women, but it is sport for me to strangle them after having enjoyed them" (16).
4. Vincenz Verzeni, in the latter part of the 19th century in Italy, sexually assaulted, killed and mutilated his female victims. In his words, "I had an unspeakable delight in strangling women, experiencing during the act erections and real sexual pleasure." Afterward he reported feeling very happy and great satisfaction. Mr. Verzeni informed officials it would be a good thing if he were kept in prison, because if he were free he could not resist his impulses (5,16).
 5. Jesse Pomeroy, born in Boston in 1859, was 14 years old at the time of his capture. He had beaten, stabbed and tortured nine child victims, sometimes masturbating during the crimes. The corpses of his last two victims had been sexually and otherwise mutilated, and one was decapitated. As constructed from information provided by those victims who survived, Jesse would "... lure them into a hidden place, strip them naked, bind them hand and foot, tie them against some object, gag the mouth with a handkerchief and then beat them with a stick, a strap or piece of rope, slowly, pausing for minutes—grinning all the time without uttering a word." A female witness, who saw Jesse walking with his ninth and final victim just before he killed him, described Jesse as having a look of excitement on his face (31,32).
 6. Peter Kurten of Germany was found guilty in 1931 of nine murders and seven attempted murders. He confessed to a total of 79 sadistic offenses spanning a period of 30 years. His victims included women, children and men. Kurten explained that he stabbed his victims repeatedly until he reached orgasm, and that sexual satisfaction was his primary motive (33).
 7. Richard Speck killed eight Chicago nurses (five of them were students) in 1966. The series of attacks began by his knocking on their townhouse door. He reassured the startled nurse who had answered as he pushed his way in with gun in hand, "I'm not going to hurt you." He assembled the six nurses who were home at the time into the master bedroom, robbed them of their money, bound them with bed sheet strips, and chatted with them amiably. He overpowered the other two nurse roommates and one of their friends as they arrived at the house later that evening. Over the course of the night Speck methodically removed his captives one by one from the makeshift holding room and killed them. They mostly died from a combination of stab wounds and strangulation. The interval between assaults averaged 25 min. The only survivor out of the nine victims, who had concealed herself by wriggling under the bed, heard Speck kindly ask one girl as he was raping her, "Will you please put your legs around my back?" (Despite this eyewitness account of the controlled nature of his attacks and polite demeanor, a psychiatrist who evaluated Speck after the crimes asserted he had "exploded in impulsivity.") When later asked in prison why he killed the women, he sarcastically answered, "It just wasn't their night." As to how he felt about the killings: "Like I always feel. Had no feelings" (32,34,35).
 8. Dean Corll, a candymaker in Texas, sexual assaulted, tortured, mutilated, and killed at least 27 boys. Most of them were teenagers, the youngest was nine. Two teenage boys Corll had befriended, Henley and Brooks, helped him procure victims. They ended up participating in some of Corll's sadistic crimes. In 1973 Henley brought a male and female friend over to Corll's home in the middle of the night to party. Henley later woke up and found himself and his friends bound with rope and electrical tape. His male friend was nude. Corll menaced the three with the following comments: "I'm gonna kill you all. But first I'm gonna have my fun." Henley, knowing torture and a painful death awaited him based on his past experiences with Corll, managed to escape by tricking Corll with the ruse he would help him. He and Corll took the captives to a bedroom where their hands were handcuffed to a long torture board and their feet were tied with rope. The plan was to assault and then kill them. Corll tried to rape the boy but he successfully fought him off. Corll ordered Henley to rape the girl. Henley got Corll's gun and shot him to death (35,36).
 9. Dennis Nilsen, a native of Scotland, killed his 15 male victims over a 5-year period beginning in 1978. He brought the victims back to his London flat and strangled or drowned them, then kept their bodies for necrophilic acts. He later disposed of some of the bodies by cutting them up into small pieces and burning them or flushing them down the toilet. Other body parts were found sequestered about his flat after his arrest. (Nilsen had worked as a butcher while in the army.) At the police station Nilsen explained, "The victim is the dirty platter after the feast and the washing up is an ordinary clinical task." When asked about his motivation for his crimes, Nilsen replied, "Well, enjoying it is as good a reason as any" (35,37).
 10. A juvenile evaluated by author W. M. related that as he was about to sadistically strangle his bound and partially nude boy victim he felt "... excited it was actually happening. [It was] going to be fun" (24).
 11. Beasley (38) described a man who committed his first killing as a teenager. As soon as he finished serving a 25-year sentence for this crime he began killing again. This man recognized that as he had matured his sexual gratification became dependent on his infliction of violence and pain on others. Violence alone at times sufficed to sexually arouse him. After his second of three homicides he began experiencing spontaneous orgasms while reminiscing about them hours afterward.
 12. A middle-aged man in one of the authors' caseload had been arrested for a sexual homicide involving extreme genital mutilation and was suspected in others. He explained that his desire for criminal excitement escalated over the years: "I was having fun ... it was a game."
- These case examples all reveal the positive feelings of sexual pleasure, even exhilaration—rather than anger or other unpleasant states—are the driving psychological force in the crimes. The exercise of power and control over the victims in these and related crimes was necessary from a practical standpoint in order for the perpetrators to accomplish their acts, and in some cases it also served the subsidiary function of heightening their sexual arousal.
- Another way of assessing motivation in serial sexual killers—beyond theoretical discourses, diagnostic assessment, and case studies—is by examining the physiology underlying their hypothesized emotional states, the biological substrate of their behaviors. More specifically, what can we learn by looking at the physiological basis of sexual arousal and anger? Are these two emotional states compatible or mutually exclusive?

The Physiology of Sexual Arousal and Anger

Sexual Arousal

Sexual arousal is the physiological component of sexual desire, which in human males and many animals is manifested most

visibly by penile erection. The erectile tissue of the human penis consists of the corpora cavernosa, two chambers filled with spongy tissue that run the length of the penis and are encased by a nondistensible fibrous capsule known as the tunica albuginea, and the corpus spongiosum, a column of spongy tissue surrounding the urethra. For an erection to occur, the tonically contracted smooth muscle of the erectile tissue's sinusoidal spaces must be reversed (39). Nitric oxide is believed to play an important role in this smooth muscle relaxation (39,40). With smooth muscle relaxation the sinusoidal spaces fill with blood and become engorged, resulting in an erection. This process leads to compression of the venous spaces, and cessation of venous outflow allows the erection to be sustained.

The inhibitory and excitatory systems controlling sexual response and erection are regulated by multiple brain structures in the central nervous system (e.g., the hypothalamus, amygdala, septum, ventral striatum, hippocampus, cingulate gyrus, orbitofrontal cortex, locus ceruleus, lateral tegmental nucleus). Cerebral impulses related to sexual arousal travel through sympathetic pathways that inhibit norepinephrine release, parasympathetic pathways that release nitric oxide and acetylcholine, and somatic pathways that release acetylcholine, all working in concert to produce a rigid erection (41). Thus the vascular events associated with penile erection are ultimately under the control of the autonomic nervous system. Downstream, sacral parasympathetic pathways activate the process by releasing vasorelaxant neurotransmitters.

Peripheral inhibition of an erectile response appears to be mediated largely by the caudal sympathetic chain, which acts on the arterial blood supply to the penis and the smooth muscle tone of the sinusoids of the corpora cavernosa (42). The principal neurotransmitter of the sympathetic nervous system is norepinephrine. It has been proposed that tonic norepinephrine action on the α -1 adrenoceptor is vital to the constricted sinusoidal smooth muscle tone of the flaccid penis (43).

On the basis of this hypothesis, excess levels of norepinephrine peripherally are believed to be associated with sexual dysfunction. A study sample of men who suffered from psychogenic erectile dysfunction were found to have significantly higher levels of norepinephrine in their penile blood relative to controls, consistent with norepinephrine modulating the inhibitory tone in erectile tissue (44). Further evidence of norepinephrine being involved in the maintenance of this tonic inhibitory tone is the observation of penile shrinkage in cold temperatures or fear-provoking settings that are known to involve a sympathetic response (43). Likewise, drugs that facilitate peripheral α -receptor activation block a genital response (45).

The physiology and neuroanatomy of sexual arousal are complex topics and beyond a more detailed description in this work. In short, sympathetic pathways and peripheral norepinephrine are antierectile and responsible for detumescence (46–48), whereas parasympathetic pathways are proerectile and responsible for tumescence (49).

Anger

Regions of the brain that have been implicated in the regulation of anger include the hypothalamus, amygdala, and orbitofrontal cortex. Using electrical stimulation of the hypothalamus and mid-brain periaqueductal gray, researchers have been able to elicit a rage response in a number of animal studies (50). Similar findings have yet to be demonstrated in humans. Although the amygdala and hypothalamus appear to be involved, the role of the orbitofrontal cortex in anger is more firmly established in the literature.

In a metaanalysis of functional imaging studies that targeted anger, a significant increase in lateral orbitofrontal cortex activity was observed (51). An abundance of studies exist demonstrating focal lesions of the lateral orbitofrontal cortex because of traumatic injury can induce anger problems and even psychopathic-like traits in previously normal individuals (e.g., explosive outbursts, marked aggression, poor impulse control, lewdness, lack of interpersonal sensitivity) (52). Similar results have been reported in a variety of monkey species (53). On the basis of a large body of evidence, researchers have proposed the existence of an inhibitory connection from the orbitofrontal cortex to the amygdala that suppresses negative emotions, with the level of control that the orbitofrontal cortex has in performing this function being variable from person to person (54). The orbitofrontal cortex appears to have a significant role in regulating the magnitude of a person's response to anger-provoking stimuli, and it is believed to be impaired in some individuals prone to aggression.

It has been well established in the literature that anger induces a peripheral surge in catecholamines via the sympathetic nervous system (55,56). This causes not only a significant increase in heart rate and blood pressure, but also impairs the ability to initiate or sustain an erection as described in the previous section on sexual arousal. This is consistent with the clinical observation that emotional states involving a sympathetic response with peripheral adrenergic activation (i.e., not just anger but fear and anxiety) inhibit sexual arousal. On the basis of years of studying human sexual behavior, Kaplan (57,58) formulated a psychosocial model of sexual desire that postulates emotional conflicts—in particular anger and anxiety—are the principal mechanisms of sexual dysfunction and hypoactive sexual desire.

Bozman and Beck (59) tested Kaplan's model clinically by examining the effects of anger and anxiety on 24 males exposed to sexual stimuli. Penile tumescence and sexual desire were closely monitored while the subjects were presented with three audiotapes that contained sexual content and statements designed to evoke anger, anxiety, or contentment (the control). Results indicated anger and anxiety significantly decreased sexual desire, with anger having the most pronounced effect. Furthermore, penile tumescence was decreased to a significantly greater extent by anger when compared with both the anxiety and control conditions. This study was repeated in a mixed gender study sample with similar findings (60). The authors opined that their results add support to Kaplan's model (57,58) by demonstrating that anger seems to be a key pathway through which sexual desire and arousal are inhibited.

In summary, the emotional experience of anger is believed to have an antierectile effect. Norepinephrine is considered to be the chief neurotransmitter for the control of penile flaccidity and detumescence. Through the physiological mechanisms discussed earlier, anger inhibits erectile function by promoting peripheral adrenergic activity and thus increased norepinephrine levels via the sympathetic nervous system. Moreover, from an adaptive standpoint, sexual response inhibition has evolved to prevent individuals from experiencing the obvious disadvantages to survival that would ensue from an ill-timed episode of sexual arousal (43). Consequently, the simultaneous occurrence of penile erection and a sympathetically mediated "fight or flight" state, as occurs during anger, would also not be predicted according to evolutionary theory.

The Nexus Between Sexuality, Aggression, and Murder

The sex drive is characterized by a craving for sexual satisfaction, and it "evolved to motivate individuals to seek sexual union with any appropriate member of the species" (61). Man's survival

over the ages also has been dependent on an instinctual capacity for hunting and killing other living things.

Sex-related aggression has evolved in many species of animals, including human males, to facilitate mating (62). Male chimpanzees routinely coerce and beat females who do not submit to their sexual advances (63). Freud (64) postulated that subjugating another person by force leads to excitement because there is no anxiety over the chance of rejection. Along these lines, a number of studies demonstrate a minority of men are sexually excited by the prospect of rape and other forms of sadistic behavior toward women. For instance, Eve and Renslow (65) reported 16% of college males in their study were sexually excited by fantasies involving the infliction of pain on others. Heilbrun and Loftus (66) found that males with higher sexual aggression viewed pictures of females with distressed faces as more sexually attractive than nonsexually aggressive males. In a further look at sadism in normal male sexuality, Heilbrun and Seif (67) discovered that the more facial distress portrayed in photographs of seminude females in bondage, the greater the sexual stimulation of the viewer, an effect more pronounced in those with greater antisociality scores and facial decoding skills. Studies on the content of sexually explicit magazines note that about 5–10% have sadomasochistic themes, a figure believed to be proportional to consumer interest in the topic (68,69). This fairly consistent finding of sexually sadistic interests in at least a minority of men may represent one end of the sexual aggression spectrum, and perhaps it follows a bell-shaped curve in its expression. Moreover, it may reflect an evolved behavioral system designed to motivate rape behavior (10). At the more extreme end of this spectrum likely lies the serial sexual murderer.

The pleasure humans can achieve from stalking and killing is revealed in various ways, such as from accounts of war, through confessions by serial murderers (70), and by the popularity of hunting. For example, a significant number of persons hunt for the simple joy of killing. This is evidenced by the thousands of hunting preserves in 28 states offering “canned hunts” (71). On these premises a hunter pays a fee to shoot a captive animal for amusement. Trophies and a “No kill, no pay” policy are typically promised. Animals to be killed are often quite tame and some have grown up handfed by humans. One preserve hunter observed that before being shot, lions would “amble over and lick your hand” (72).

Nadelson ((73), p. 120), in an editorial on killing, described the act as “exciting and arresting” and with “constant novelty.” He presented case reports of soldiers in combat who became sexually aroused by the process of killing others. Gray ((74), p. 57) has pointed out that for some soldiers the destruction of others “becomes a consuming lust which swallows up other pleasures” and makes them “inaccessible to more normal satisfactions.” This description is not unlike the insatiable hunger to hunt and kill victims some serial sexual killers have reported experiencing once they started their deadly avocation. Furthermore, some of them have stated that only incarceration could prevent them from killing again to sate this appetite. Maier ((75), p. 590) noted that serial killers not only can find the stalking of victims exciting and erotic, but also are permanently changed by their murders, with each one becoming “fixed to the death he had caused.” In a recent German study of 166 sexual murderers, Briken et al. (76) reported that one half of the sample experienced sexual arousal during their homicidal acts (more specifically, 71% of those with brain abnormalities and 41% of those without brain abnormalities had this experience).

Serial sexual murderers commit their crimes primarily in pursuit of sadistic pleasure. For some the sexual excitement is more deeply intertwined with the act of killing than with others, and this

will vary with each offender based on his personality style and specific deviant interests. The domination and control they exert over their victims can be viewed as serving two secondary purposes, again differentially expressed depending on the perpetrator’s personal needs and *modus operandi*. First, it may serve as a means to heighten their sexual arousal, a perverse form of “sadistic foreplay.” Second, it may be related to the practical need to manage the victim so that the crime can take place. Crime scene analysis can assist in making these determinations.

Discussion

The Sexual Motivation Hypothesis Is Primary

We have addressed different motivational theories pertaining to why serial sexual killers commit their crimes. Krafft-Ebing ((16), p. 57) asserted “sexual desire must always be regarded as the basis of sadistic inclinations.” Our conclusion is analogous: serial sexual murderers commit their crimes primarily in pursuit of sadistic pleasure. We do not believe it is coincidental the typical victim of these offenders is a reproductive-aged female.

Attainment of power and control over victims is considered secondary and used in the service of sadistic pleasure. It is a necessary part of the *modus operandi* in most cases, for without it these crimes could not be committed, and it may also serve to intensify the sexual arousal of the offender.

Anger is not considered a key component of these offenders’ motivation. There is a significant body of scientific literature indicating the physiological processes of anger and sexual arousal are incompatible; anger or rage has an inhibitory rather than facilitative effect on sexual functioning. Furthermore, although state and trait anger may be elevated in serial sexual homicide offenders, as it is in persons with psychopathy or histories of criminality (77–79), this does not imply causation but merely correlation. Criminals as a class have a more “angry” baseline than noncriminal persons.

On the basis of the reasoning outlined throughout this work, we believe most serial sexual killers should be considered sex offenders who have a paraphilic disorder falling within the sexual sadism spectrum. A subtype of sexual sadism could be added to the American Psychiatric Association’s Diagnostic and Statistical Manual of Mental Disorders (DSM-IV-TR)—i.e., “Sexual Sadism, Homicidal Type”—to more specifically capture many in this population. A suggested modification of DSM criteria to accommodate this new subtype is presented in Table 1. The use of this subtype, if validated through future studies, would advance the diagnostic utility of sexual sadism, and in turn might also help promote more refined research on serial sexual killers.

Many readers may perceive the above views as obvious and in line with the doctrine of *res ipsa loquitur* (literally, “the thing that speaks for itself”). Nonetheless there are writers, as pointed out previously, who have emphasized other motivational forces in serial sexual murderers as explanatory. We believe further discussion in this area by professionals from different fields is important. For instance, certain sex offender typologies, while not specifically addressing serial sexual homicide, contain “anger” categories to explain offenders’ actions. Groth (80) and Knight et al. (81) have described the “anger rape” and “pervasively angry” type rapists, respectively. The associated mood states are described as being composed of anger and depression or pervasive anger at the world in general. These categories suggest anger is a motivational force in these rapists. Are such typologies truly accurate given what we know about the physiology of male sexual arousal and

TABLE 1—*Diagnostic criteria for 302.84 sexual sadism.*

- A. Over a period of at least 6 months, recurrent, intense sexually arousing fantasies, sexual urges, or behaviors involving acts (real, not simulated) in which the psychological or physical suffering (including humiliation) of the victim is sexually exciting to the person.
- B. The person has acted on these urges with a nonconsenting person, or the sexual urges or fantasies cause marked distress or interpersonal difficulty.

*Specify if:

Homicidal Type: *This subtype applies if there is evidence the person has killed one or more victims for sexual excitement*

*Proposed subtype addition in italics.

anger's dampening effect on it? In addition, is an attributional error being committed, i.e., confusing anger with motive? Is there truly a connection between the offenders' mood state and the sex offense? Although such offenders may be perceived as angry people during classification efforts, it is doubtful they were in a major state of anger or rage at the time they committed rape.

Alternatively, a substantial minority of rapists experience difficulty achieving or maintaining an erection during their assaults (82). For some of these offenders this sexual dysfunction could be due to the suppressive effects of anger. However, their dysfunction could also be related to performance anxiety, fear of being apprehended, or substance abuse. Roughly one third of rapists use alcohol and up to a quarter use drugs of abuse before their crimes (83).

These and related questions have important implications for how law enforcement interprets what has occurred at a sexually violent crime scene and their subsequent suspect development efforts. Given a state of sexual arousal is believed to be incongruous with an affective state of significant anger, the validity of an "anger motivated" sexual offender theory is brought into question. Homicide and sexual assault detectives during criminal investigative analysis of relevant crime scenes should consider the implications of offender affective state as it relates to sexual functioning. Such information ultimately could prove to be a form of forensic evidence.

Origins of the Alternative Theories of Anger and Power and Control

What might have led to the misattribution of anger as a causative rather than a correlative emotional state in serial sexual killers? There are likely three complementary explanations. First, one misleading source of the anger motivation hypothesis comes from a reliance on interviews with offenders after their arrest but before they have stood trial or been sentenced. During the pretrial period the accused are faced not only with the possibility of losing their liberty through life in prison, but also with execution depending on the state or jurisdiction in which they have been arrested. Offenders additionally know juries and courts have little sympathy for them from the start. Moreover, serial killers who have sexually assaulted their victims also are aware they are going to be perceived as not just murderers but as sexual offenders. Most of them realize it is better for their legal outcome and future safety to be perceived by courts, society, prison personnel, and future fellow inmates as a "hothead" or "angry" rather than as a "pervert" or "sexual deviant." When asked to explain their crimes, it is no wonder they commonly will avoid addressing the sexual component of their acts and instead attribute it to some form of anger or loss of control, more socially acceptable answers.

Second, the crime scenes of these offenders are often bloody and disturbing. The victims' bodies may be mutilated, severely damaged or otherwise treated with utter disrespect. Household items may be in disarray. There is a tendency at times for commentators, law enforcement and others to make the assumption

these offenders must have been angry or in a rage to have committed such heinous acts upon another person.

Lastly, there has been disagreement for a number of decades as to whether rape is a sexual or violent crime; the latter has been referred to as the feminist or sociological theory of rape. Relatedly, rape victims at counseling centers and police stations are commonly informed that their crime was not a sexual one, but one having to do with power, control, and violence. It is not our intent to engage in this debate here. In brief, however, we suspect there has been some spillage of the nonsexual theory of rape into the domain of serial sexual homicide investigation and research.

Semantics: Anger Is Not Synonymous with Aggression

In some instances, authors who attribute the actions of serial sexual murderers to "anger" or "rage" appear to have meant "aggression" or "violence." These latter terms are not synonymous with anger. Certainly the behaviors of serial sexual murderers toward their victims can be considered aggressive or violent. However, the commission of aggressive acts does not mean the actor was "angry." Aggression in humans can be defined as "overt behavior involving intent to inflict noxious stimulation or to behave destructively toward another organism (62)." Volavka states that "violence" denotes aggression in humans. There are many examples of human behavior that demonstrate aggression unassociated with anger. For instance, no one would argue that certain sports like football are highly aggressive, yet the players are not normally angry at each other. In the words of a former professional football player (84): "When I played, of course, part of the enjoyment was hitting a guy. Most football players would tell you that." Likewise, hunters cause serious bodily injury and death to animals, yet they are not angry at their prey. Serial sexual killers themselves have referred to their crimes as a "sport" or form of "hunting."

Aggression can be dichotomously classified into predatory and affective types (85,86). Predatory violence is manifested by planned, purposeful acts accompanied by a state of low autonomic arousal, whereas affective violence refers to reactive, impulsive acts associated with a high state of autonomic arousal. The evolutionary foundations for predatory and affective aggression are believed to be hunting for food and self-defense, respectively (85). It is generally accepted that the acts of serial sexual killers are predatory in nature. For example, in a study of sadistic offenders by Dietz et al. (87) (73% committed murder and 57% had killed three or more victims), 93% of the offenses were carefully planned and 87% of the perpetrators had an unemotional, detached affect during their assaults. Interestingly, although 43% in this sample experienced sexual dysfunction during their crimes, their emotional states were not described as angry or enraged but low in intensity of feeling. This finding speaks against the previously mentioned possibility that sexual dysfunction in serial sexual murderers could be related to feeling angry at the time of their offenses.

Obtaining Valid Research Interviews with Serial Sexual Murderers

How can interviewers best determine the motivational and other forces at play in the serial killer beyond what the crime scene tells us? There are at least three conditions that ideally should be in place to help ensure the validity of the interview results:

- First, and the most challenging of all, is for the interviews to be conducted not only postconviction but after the possibility of all reasonable appeals are exhausted. The risk of self-serving answers is markedly elevated if the possibility of freedom or a lesser sentence is in the forefront.
- Second, written assurance should be provided at the outset informing the interviewee any information obtained will be confidential and unavailable to their attorneys or for future parole or other hearings.
- Third, the offenders should be asked about motives, feelings, and other information pertaining to their crimes in an open-ended fashion. It is important to avoid leading, coercive, or biased questions that can steer or contaminate the offender's responses. Below is an example of an interview by a detective who clearly had preconceived ideas about what motivated this sexual murder suspect. This section below is the first part of the interview that addressed motivation (underling the authors' emphasis):

Detective: "Were you *angry* . . . were you *angry* at her? You tried to have sex with her, she told you no, she didn't want to. Were you *angry*?"

Suspect: "Yeah."

Detective: "You were *angry*. Were you *angry* at her or were you *angry* at someone else?"

Suspect: "Um . . . myself."

This interviewer clearly had the predetermined idea that this suspect must have acted in anger during the crime. The detective has selected only one emotion—anger—to focus on out of the entire spectrum of human emotions; he referred to it six times in two contiguous questions. In fact, the term "angry" is said to the suspect three times before he gets his first chance to reply about his motivation. What credence can be given in these circumstances to the suspect's one word affirmation of the detective's theory and then his naming of himself as the recipient of his own anger?

Limitations

Human behavior is complex and we anticipate there will be exceptions to any generalizations made about it. Our scientific knowledge of serial sexual murderers remains limited and the need for ongoing research in this area is crucial in light of the grave societal consequences produced by their crimes. Although less true than 30 years ago, the words of Stoller ((88), p. 55) still portray the challenges researchers face in attempting to understand violent sexual offenders:

"You can study every cell of the brain and every animal in the kingdom and not know why a man gets excited by wearing a woman's shoe, or by a dead body, or by an amputee, or by a child."

References

1. Dennis B, Solochek JS. Body likely missing Ruskin girl. The St. Petersburg Times 2005 April 17; Sect. A:1.
2. Colavecchio-van SS, Amrhein S. A face of kindness, accused of horror. The St. Petersburg Times 2005 May 27; Sect. A:1.
3. Meloy JR, Felthous AR. Introduction to this issue: serial and mass murder. Behav Sci Law 2004;22:289–90.
4. Myers WC. Serial murder by children and adolescents. Behav Sci Law 2004;22:357–74.
5. Masters REL, Lea E. Perverse crimes in history. New York: Julian Press, 1963.
6. Cook PE, Hinman DL. Serial murder. In: Hall HV, editor. Lethal violence: a sourcebook on fatal, domestic, acquaintance and stranger violence. Boca Raton, FL: CRC Press, 1999:363–82.
7. Geberth VJ. Practical homicide investigation: tactics, procedures, and forensic techniques. 3rd ed. Boca Raton, FL: CRC Press, 1996.
8. Groth AN, Burgess W, Holmstrom LL. Rape: power, anger, and sexuality. Am J Psychiatry 1977;134:1239–43.
9. Thornhill R, Palmer CT. A natural history of rape: biological bases of sexual coercion. Cambridge, MA: MIT Press, 2000.
10. Shackelford TK. Are young women the special targets of rape-murder? Aggressive Behav 2002;28:224–32.
11. Wilson M, Daly M, Scheib J. Femicide: an evolutionary psychological perspective. In: Gowaty AP, editor. Feminism and evolutionary biology. New York, NY: Chapman and Hall, 1997:431–65.
12. Beauregard E, Proulx J. Profiles in the offending process of nonserial sexual murderers. Int J Offender Ther Comp Criminol 2002;46:386–99.
13. Langevin R. The sex killer. In: Burgess AW, editor. Rape and sexual assault, Vol. 3. New York, NY: Garland, 1991:258–73.
14. Douglas JE, Burgess AW, Burgess AG, Ressler RK. Crime classification manual. New York: Lexington Books of Macmillan, 1992.
15. Merriam-Webster online dictionary. <http://www.m-w.com/cgi-bin/dictionary>
16. Krafft-Ebing R. Psychopathia sexualis. Rebman FJ, translator. Brooklyn, NY: Physicians and Surgeons, 1882.
17. MacCulloch MJ, Snowden PR, Wood PJW, Mills HE. Sadistic fantasy, sadistic behaviour and offending. Br J Psychiatry 1983;143:20–9.
18. Douglas JE, Burgess AW, Ressler RK. Sexual homicide: patterns and motives. New York, NY: Simon and Schuster, 1988.
19. Prentky RA, Burgess AW. Hypothetical biological substrates of a fantasy-based drive mechanism for repetitive sexual aggression. In: Burgess AW, editor. Rape and sexual assault, Vol. 3. New York, NY: Garland, 1991:235–56.
20. Porter S, Woodworth M, Earle J, Drugge J, Boer D. Characteristics of sexual homicides committed by psychopathic and nonpsychopathic offenders. Law Hum Behav 2003;27:459–70.
21. Brittain RP. The sadistic murderer. Med Sci Law 1970;10:198–207.
22. Cartel M. Disguise of sanity—serial and mass murderers. North Hollywood, CA: Pepperbox, 1985.
23. Myers WC. A media violence-inspired juvenile sexual homicide offender 13 years later. J Forensic Sci 2003;48(6):1385–90.
24. Myers WC. Juvenile sexual homicide. London: Academic Press, 2002.
25. Firestone P, Bradford JM, Greenberg DM, Larose MR. Homicidal sex offenders: psychological, phallometric and diagnostic features. J Am Acad Psychiatry Law 1998;26:537–52.
26. Meloy JR. The nature and dynamics of sexual homicide: an integrative review. Aggress Violent Behav 2000;5:1–22.
27. Myers WC, Recoppa L, Burton K, McElroy R. Malignant sex and aggression: an overview of serial sexual homicide. Bull Am Acad Psychiatry Law 1993;34:435–51.
28. Stone MH. The personalities of murderers: the importance of psychopathy and sadism. In: Skodol AE, editor. Psychopathology and violent crime. Washington, DC: American Psychiatric Press, Inc, 1998:29–51.
29. Benedetti J. The real Bluebeard: the life of Gilles de Rais. New York, NY: Stein & Day, 1971.
30. Baring-Gould S. The book of werewolves: being an account of terrible superstition. Originally published 1865. Republished. London, UK: Senate Press, 1995.
31. Schechter H. Fiend: the shocking true story of America's youngest serial killer. New York, NY: Pocket Books, 2000.
32. Stuttman. Crimes and punishment: the illustrated crime encyclopedia. Westport, CT: Stuttman, 1994.
33. Berg K. The sadist. New York, NY: Medical Press, 1954.
34. Breo DL, Martin WJ. Crime of the century: Richard Speck and the murder of eight nurses. New York, NY: Bantam Books, 1993.
35. Newton M. The encyclopedia of serial killers. New York, NY: Checkmark Books, 2000.
36. Olsen J. The man with the candy. New York, NY: Simon and Schuster, 1974.
37. Masters B. Killing for company. New York, NY: Dell, 1993.
38. Beasley JO II. Serial murder in America: case studies of seven offenders. Behav Sci Law 2004;22(3):395–414.

39. Andersson KE, Wagner G. Physiology of penile erection. *Physiol Rev* 1995;75:191–236.
40. Burnett AI. The role of nitric oxide in the physiology of erection. *Biol Reprod* 1995;52:485–9.
41. El-Sakka AI, Lue TF. Physiology of penile erection. *Sci World J* 2004;4(1):128–34.
42. Giuliano F, Rampin O, Bernabem J, Rousseau JP. Neural control of penile erection in the rat. *J Auton Nervous Syst* 1995;55:36–44.
43. Bancroft J. Central inhibition of sexual response in the male: a theoretical perspective. *Neurosci Biobehav Rev* 1999;23:763–84.
44. Kim SC, Oh MM. Norepinephrine involvement in response to intra-corporeal injection of papaverine in psychogenic impotence. *J Urol* 1992;147:1530–2.
45. Riley AJ. Yohimbine in the treatment of erectile disorders. *Br J Clin Pract* 1994;48(3):133–6.
46. Bitran D, Hull EM. Pharmacological analysis of male rat sexual behavior. *Neurosci Biobehav Rev* 1987;11:365–89.
47. Rampin O. Neural control of erection. *J Soc Biol* 2004;198(3):217–30.
48. Wilson CA. Pharmacological targets for the control of male and female sexual behaviour. In: Riley AJ, Peet M, Wilson C, editors. *Sexual pharmacology*. Oxford: Clarendon Press, 1993:1–58.
49. Giuliano F, Rampin O. Neural control of erection. *Physiol Behav* 2004;83(2):189–201.
50. Siegel A, Roeling TA, Gregg TR, Kruk MR. Neuropharmacology of brain-stimulation-evoked aggression. *Neurosci Biobehav Rev* 1999;23:359–89.
51. Murphy FC, Nimmo-Smith I, Lawrence AD. Functional neuroanatomy of emotions: a meta-analysis. *Cog Affect Behav Neurosci* 2003;3(3):207–33.
52. Brower MC, Price BH. Neuropsychiatry of frontal lobe dysfunction in violent and criminal behaviour: a critical review. *J Neurol Neurosurg Psychiatry* 2001;71:720–6.
53. Raleigh MJ, Steklis HD, Ervin FR, Kling AS, McGuire MT. The effects of orbitofrontal lesions on the aggressive behavior of vervet monkeys (*Cercopithecus aethiops sabaues*). *Exp Neurol* 1979;66(1):58–68.
54. Davidson RJ, Putnam KM, Larson CL. Dysfunction in the neural circuitry of emotion regulation—a possible prelude to violence. *Science* 2000;289:591–4.
55. Suarez EC, Saab PG, Llabre MM, Kuhn CM, Zimmerman E. Ethnicity, gender, and age effects on adrenoceptors and physiological responses to emotional stress. *Psychophysiology* 2004;41(3):450–60.
56. Spieker L, Noll G. Pathophysiologic cardiovascular changes in stress and depression. *Ther Umsch* 2003;60(11):667–72.
57. Kaplan HS. Disorders of sexual desire. New York, NY: Brunner/Mazel, 1979.
58. Kaplan HS. The evaluation of sexual disorders. New York, NY: Brunner/Mazel, 1984.
59. Bozman AW, Beck JG. Covariation of sexual desire and sexual arousal: the effects of anger and anxiety. *Arch Sex Behav* 1991;20(1):47–60.
60. Beck JG, Bozman AW. Gender differences in sexual desire: the effects of anger and anxiety. *Arch Sex Behav* 1995;24(6):595–612.
61. Fisher H. Lust, attraction, attachment: biology and evolution of the three primary emotion systems for mating, reproduction and parenting. *J Sex Educ Ther* 2000;25:96–104.
62. Moyer KE. The psychobiology of aggression. New York, NY: Harper and Row, 1976.
63. Stanford CB. The brutal ape vs. the sexy ape? *Am Sci* 2000;88:110–2.
64. Freud S. Beyond the pleasure principle. New York, NY: W.W. Norton & Company, Inc, 1920 (1990 reprint).
65. Eve RA, Renslow DG. An exploratory analysis of private sexual behaviors among college students: some implications for a theory of class differences in sexual behavior. *Soc Behav Pers* 1980;8(1):97–105.
66. Heilbrun AB, Loftus MP. The role of sadism and peer pressure in the sexual aggression of male college students. *J Sex Res* 1986;22:320–32.
67. Heilbrun AB, Seif DT. Erotic value of female distress in sexually explicit photographs. *J Sex Res* 1988;24:47–57.
68. Malamuth N, Spinner B. A longitudinal content analysis of sexual violence in the best-selling erotic magazines. *J Sex Res* 1980;16:226–37.
69. Winick C. A content analysis of sexually explicit magazines sold in an adult bookstore. *J Sex Res* 1985;21:206–10.
70. Holmes RM, Holmes ST. *Murder in America*. Thousand Oaks, CA: Sage Publications, 1994.
71. U.S. Humane Society, <http://www.hsus.org/wildlife/issues>, retrieved May 25, 2005.
72. Alexander N. [No title]. *Animal Rights Foundation of Florida News*, 2005 Spring;5.
73. Nadelson T. Killing. *J Am Acad Psychiatry Law* 2002;30(2):201–6.
74. Gray G. *The warriors*. New York, NY: Harper and Row, 1970.
75. Maier G. Killing (In reply). *J Am Acad Psychiatry Law* 2002;30(4):590.
76. Briken P, Habermann N, Berner W, Hill A. The influence of brain abnormalities on psychosocial development, criminal history and paraphilias in sexual murderers. *J Forensic Sci* 2005;50:1204–8.
77. Atlas J, Porzio L. Rage and anger: dealing with the symptoms of dysfunction in current American society. *Am J Psychiatry* 1994;22:103–13.
78. Cleckley H. *The mask of sanity*. 5th ed. St. Louis, MO: Mosby, 1976.
79. Spielberger CD. *State-trait anger expression inventory: revised research edition*. Odessa, FL: Psychological Assessment Resources, 1991.
80. Groth AN. *Men who rape: the psychology of the offender*. New York: Plenum Press, 1979.
81. Knight R, Warren J, Reboussin R, Soley B. Predicting rapist type from crime scene variables. *Crim Justice Behav* 1999;25:46–80.
82. Groth NA, Burgess AW. Sexual dysfunction during rape. *N Engl J Med* 1977;14:764–6.
83. Hazelwood RR, Warren JJ. The serial rapist. In: Hazelwood RR, Burgess AW, editors. *Practical aspects of rape investigation*. Boca Raton, FL: CRC Press, 1995:337–59.
84. Gay T. Football risks. *The Tampa Tribune* 2004 September 21; Sect. A:6(col. 1).
85. Meloy JR. The empirical basis and forensic application of affective and predatory violence. *Aust N Z J Psychiatry*. In press.
86. Raine A, Meloy JR, Bihle S, Stoddard J, Lacasse L, Buchsbaum MS. Reduced prefrontal and increased subcortical brain functioning assessed using positron emission tomography in predatory and affective murderers. *Behav Sci Law* 1998;16:319–32.
87. Dietz P, Hazelwood R, Warren J. The sexually sadistic criminal and his offenses. *Bull Am Acad Psych Law* 1990;18:163–78.
88. Stoller R. *Perversion: the erotic form of hatred*. Washington, DC: American Psychiatric Press, Inc, 1975.

Additional information and reprint requests:

Wade C. Myers, M.D.

Forensic Psychiatry Program

Department of Psychiatry

University of South Florida College of Medicine

12901 Bruce B. Downs Blvd., MDC 102

Tampa, FL 33612

E-mail: wmyers@hsc.usf.edu