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Chapter 2

**THE APPLICATION OF AFFECTIVE AND
PREDATORY AGGRESSION TO
PSYCHOLEGAL OPINIONS**

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ABSTRACT

The aim of the chapter is to discuss the bimodal classification of aggression—what we term affective and predatory violence—and its application to and association with psycholegal opinions. From historical evidence, proposed definitions, and a comprehensive review of the empirical literature, we first lay the foundation for a bimodal classification system of aggressive and violent behavior, and then discuss its implications for judicial decision-making and expert opinion.

HISTORY

Violence and aggressive behavior are multifaceted constructs influenced by biological, sociological and psychological phenomenon (Raine, Brennan, Farrington, and Mednick, 1997). A specific area of research at the forefront of this discussion is found in the exploration of the neurobiological underpinnings of animal behavior. Several early animal studies provided a useful framework in which theoreticians began to conceptualize human aggressive behavior (for reviews, see McEllistrem, 2004; Weinshenker and Siegel, 2002). Past and present animal models have consistently demonstrated how neuroanatomical structures and neurotransmitters are differentially implicated in the expression of aggressive and violent behavior. In one of the earliest research endeavors conducted by Hess and Brugger (1943), the scientists observed increased arousal patterns in cats following electrical stimulation of the hypothalamus. They characterized this behavioral pattern as "affective defensive behavior" and "quiet biting attack". Observations of a cat's behavior during a period of affective violence included piloerection, hissing, pupil dilation, arched back, display of teeth and claws, and ears tilted backwards. Although there is some degree of overlap between affective defense and predatory attack regarding pupil dilation and behavioral alerting, the latter departs significantly from its counterpart in that it is devoid of any sympathetic arousal. Prior to a predatory attack, the cat slowly and carefully creeps up upon its prey to avoid detection and provide an element of surprise. With calculated precision, the cat unleashes a series of lethal bites to the intended target, usually directed toward the dorsal portion of the neck. Such research paved the way for future experimental studies, which reported similar findings (Sheard and Flynn, 1967; Wasman and Flynn, 1962; Wyrwicka and Doty, 1966). This model was subsequently theoretically applied to human aggression and violence.

DEFINITIONS

Researchers have attempted to operationally define the constructs of human aggression and violence for decades. However, despite creativity and persistence, the scientific community is quick to point out that most proposed definitions do not adequately capture the true meaning and breadth of these constructs (Geen, 1990). Moreover, the inability to accurately define aggressive and violent behavior leads to a degree of uncertainty and confusion among researchers and clinicians in the behavioral sciences.

As previously mentioned, early definitions of aggressive behavior first emerged with the study of animal models (Bard, 1928; Cannon and Britton, 1925). Buss (1961) and Moyer (1968, 1976) were among the first researchers to conceptualize mammalian aggressive behavior in terms of aggressive subtypes, such as defensive and hostile. For example, an animal backed into a corner will display defensive aggression in an attempt to thwart the imminent attack of a larger predator. Blanchard, Blanchard, Takahashi, and Kelley (1977) described the aggression displayed by the rat as "offense" and "defense," and in the cat as affective defense or predatory attack (Siegel, Roeling, Gregg, and Kruk, 1999). Animal forms of aggression are also referred to as interspecific or predatory, intraspecific or agnostic, and indiscriminate or reactive (Ramirez, 1981). Despite the differences in terminology used to describe animal and human aggression, researchers continue to draw parallels between these two groups.

The practice of classifying human aggressive behavior into dichotomous variables is gaining increasing acceptance in the scientific community as evidenced by numerous publications supporting its validity (Dodge and Coie, 1987; Kockler, Stanford, Nelson, Meloy, and Sanford, 2006; Woodworth and Porter, 2002). There are several commonly shared terms used to describe affective violence postulated in the human aggression literature: impulsive (Barratt, Dowdy, Liebman, and Kent, 1999; Stanford, Houston, Mathias, Villamarette-Pittman, Helfritz, and Conklin, 2003a), reactive (Cornell, Warren, Hawk, Stafford, Oram, and Pine, 1996; Crick and Dodge, 1996), hostile (Bushman and Anderson, 2001), emotional (Gottman, et al., 1995), and expressive violence (Campbell, Muncer, McManus, and Woodhouse, 1999).

Affective violence is preceded by a surge in autonomic (sympathetic) arousal; it is accompanied by unmodulated affect; and its sole purpose is threat reduction (Meloy, 1988, 2006). The affective aggressor is described as "short fused," and typically responds to provocation with immediate destruction and violence without seriously considering the consequences of the behavior. The primal response associated with this type of violent behavior often results in the arrest of the affective aggressor, usually charged with assault or battery (Meloy, 2000). One possible explanation for this emotional dyscontrol is found in several experimental studies, which reported an association between behavioral impulsivity and neurocognitive dysfunction (Barratt, Stanford, Kent, and Felthous, 1997; Raine, Meloy, Bihle, Stoddard, LaCasse, and Buchsbaum, 1998; Stanford, Greve, and Gerstle, 1997; Villemarette-Pittman, Stanford, and Greve, 2003).

Its counterpart, predatory violence, requires planning and forethought, and is generally executed with very little, if any, autonomic arousal, for the benefit of

achieving a desired goal. Predatory violence has also been referred to as premeditated (Barratt et al., 1999; Kockler, et al., 2006), instrumental (Bushman and Anderson, 2001), cold blooded (Woodworth and Porter, 2002) or proactive violence (Crick and Dodge, 1996). Similar distinctions have been made in studies of aggressive children (Atkins and Stoff, 1993; Barry et al., 2007; Day, Bream, and Pal, 1992; Dodge and Coie, 1987) as well as adolescents (Mathias et al., in press; Vitaro, Gendreau, Tremblay, and Oligny, 1998). These studies divided aggressive youth into those who primarily display reactive (affective) aggression in the context of high emotional arousal and those who display premeditated (predatory) forms of aggressive behavior, which include the bullying of other children. Meloy (1988, 1997, 2000, 2006) proposed a theoretical model for differentiating these two modes of violence in forensic settings (see table 1).

Table 1. Theoretical Model of Affective and Predatory Violence

<u>Affective Violence</u>	<u>Predatory Violence</u>
1. Intense autonomic arousal	Minimal or absent autonomic arousal
2. Subjective experience of emotion	No conscious emotion
3. Reactive and immediate violence	Planned or purposeful violence
4. Internal or external perceived threat	No imminent perceived threat
5. Goal is threat reduction	Variable goals
6. Possible displacement of target	No displacement of target
7. Time-limited behavioral sequence	No time limited sequence
8. Preceded by public posturing	Preceded by private ritual
9. Primarily emotional/defensive	Primarily cognitive/attack
10. Heightened and diffuse awareness	Heightened and focused awareness

Meloy (1988, 1997, 2000, 2006).

Despite empirical evidence for the two modes of violence, there are some researchers who contend that by using a dichotomous system (Bushman and Anderson, 2001), we somehow limit our understanding of aggressive behavior—an argument that is difficult to support given the recent advances in our understanding of this scheme (Barry et al., 2007; Raine et al., 1998; Woodworth

and Porter, 2002). Other researchers recognize the importance of using two modes of violence, but argue that pure forms of aggression rarely exist (Block and Block, 1992). In support of this latter position, our data analysis of a forensic sample (Kockler, et al., 2006) yielded two important findings: 1) empirical support for the bimodal classification of aggression; and 2) the significant correlation between the premeditated (predatory) and impulsive (affective) aggression items. The association of these two constructs supports the hypothesis of a dimensional approach rather than a categorical approach (Meloy, 2006) to modes of violence, and may contribute to criminal versatility (Kockler, et al., 2006). Given these findings, we suggest the use of behavioral and self-report instruments, which allow for the measurement of predatory and affective violence as bimodal constructs when applied to the violent criminal offense, which is the focus of investigation (see Meloy, 2006, for a review).

CONTEMPORARY EMPIRICAL EVIDENCE

Psychophysiology

There is no body of controlled research examining the psychophysiology and cognitive correlates of those who engage in predatory and affective violence, but initial research is promising. Pitts (1997) classified a sample of children into two groups, proactive or reactive aggressors. His overall findings indicated that aggressive children displayed significantly lower heart rate levels relative to the non-aggressive group—a general finding among adolescent delinquents consistently found in the research (Raine, 1993). Moreover, as they were engaging in a challenging task, reactive aggressive children showed accelerated heart rates, but the proactive children did not, consistent with other research which has linked low heart rate reactivity to the generally chronic cortical underarousal found in habitually violent criminals (Raine, 1993).

Several studies conducted in the 1990s employed EEG measured event-related potentials, specifically the P3 waveform, to assess higher cortical functions in aggressive subtypes. Barratt et al. (1997) divided prison inmates into impulsive and non-impulsive groups, and then compared group performances on a standard visual oddball task. The authors reported that impulsive aggressors displayed a significant reduction in amplitude and longer latency P3 waveforms relative to non-impulsive aggressors. These findings were later replicated in college samples (Gerstle, Mathias, and Stanford, 1998; Mathias and Stanford, 1999) and outpatient psychiatric samples (Stanford, Houston, Villamarette-Pittman, and Greve, 2003).

Event related potentials have also been examined in perpetrators of spousal abuse. Stanford, Conklin, Helfritz and Kockler (2007) were the first group of researchers to integrate both the psychophysiological and neuropsychological correlates of individuals charged with and convicted of spousal abuse. A small sample of 18 males with documented histories of arrest and conviction, and a comparison group of 18 non-violent male controls were selected. Results from this study supported the notion of cognitive processing deficits in individuals convicted of spousal abuse, which is usually affective violence (Gottman et al., 1995; Dutton, 1995). These authors further posited that attentional deficits might lead to behavioral impulsivity, a finding commensurate with other studies (Iacono, Malone, and McGue, 2003; Kockler and Stanford, in press; Patton, Stanford and Barratt, 1995).

Raine and colleagues (1998) were the first researchers to study predatory and affective male murderers with neuroimaging technology. Positron Emission Tomography (PET)—a measure of relative glucose metabolism and inferred brain activation—was utilized with a sample of 15 predatory and 9 affective murderers referred for evaluation during criminal litigation concerning sanity at the time of the crime or competency to stand trial (IST). Images were gathered immediately following a neuropsychological measure of sustained attention. The authors hypothesized that the affective murderers would show significantly lower levels of glucose metabolism in the prefrontal cortices (an area responsible for planning, organizing, initiation, and impulsivity; Lezak, Howieson, and Loring, 2004), increased levels of right subcortical activity (an area responsible for aggressive behavior; Fuster, 1989), and reduced prefrontal/subcortical ratios relative to controls ($n=41$). Additionally, no significant differences were expected between the predatory murderers and control group. The authors found that (1) affective murderers exhibited significant deficits in the prefrontal cortices and increased activity in the right subcortical area compared to controls, and (2) the predatory murderers did not show the prefrontal deficits, but did have similar increased activity in their right subcortical region compared to controls. These results suggested that the propensity for aggression was similar for the predatory and affective murderers, but the predatory group had sufficient cognitive resources (i.e., prefrontal cortices) to modulate these aggressive impulses, whereas the affective murderers did not.

Neurochemistry

Several neurotransmitters (both inhibitory and excitatory) are instrumental in the suppression or expression of predatory and affective violence. The specific neurochemicals include serotonin, acetylcholine, dopamine, norepinephrine, and gamma aminobutyric acid (GABA). In animal studies, acetylcholine, norepinephrine and dopamine appear to facilitate aggressive responses, whereas GABA acts as an inhibitory neurotransmitter.

Linnoila et al. (1983) compared 5-HIAA (serotonin metabolite) concentrations in participants they classified as having impulsive or premeditated violent behavior. Thirty-six violent offenders (18-49 years old) convicted of murder or attempted murder were recruited. The authors hypothesized that relative to the premeditated group (paranoid or passive-aggressive personality), the impulsive group (antisocial and explosive personality) would have lower cerebrospinal fluid (CSF) 5-HIAA concentrations. As predicted, impulsive offenders had lower levels of CSF 5-HIAA, with their violence often directed at both innocent bystanders (i.e., murder) and themselves (i.e., suicide). Furthermore, the authors speculated that when an individual is under the influence of alcohol, it might accentuate the degree of impulsive aggression displayed. In a follow up study, Virkkunen, De Jong, Bartko, and Linnoila (1989) reported an association between lower CSF 5-HIAA levels in individuals classified as violent offenders and impulsive fire setters and a history of suicide attempts. This research group also demonstrated the ability to predict future suicide attempts with low CSF 5-HIAA levels in violent populations (Linnoila, De Jong, and Virkkunen, 1989).

Neuropsychology

Within the past decade, several studies proposed that domestic violence offenders suffer from neuropsychological deficits, which in turn increases their propensity for affective violence (Cohen, Rosenbaum, Kane, Warken, and Benjamin, 1999; Rosenbaum, Hoge, Adelman, Warnken, Fletcher, and Kane, 1994; Westby and Ferraro, 1999). Cohen, Brumm, Zawacki, Paul, Sweet, and Rosenbaum (2003) recruited 41 batterers from an outpatient treatment program and compared them to 20 non-violent men. Cohen and colleagues asserted there were mild-moderate deficits in the domestic violent offenders relative to controls. As the authors acknowledged, results from this study should be interpreted with caution as the high incidence of head trauma could serve as a potential confound.

Teichner, Golden, Van Hasselt, and Peterson (2001) examined 50 male batterers and 23 nonpatient controls on several executive functioning measures. Participants were classified as having neuropsychological impairments if their scores exceeded the recommended cutoff scores on two or more measures. According to Teichner and colleagues, 24 out of 50 male batterers (48%) met the impairment criteria, compared to 1 out of 23 nonpatient controls (4.3%). The authors concluded that the impaired batterers performed significantly worse on all measures thought to assess executive functioning, and these findings are consistent with previous domestic violence research (Rosenbaum et al., 1994; Stanford et al., 2007).

Rasmussen, Levander, and Sletvold (1995) compared a group of 13 aggressive schizophrenics, 13 non-aggressive schizophrenics, and 13 healthy controls on a series of measures. The data indicated the aggressive schizophrenic patients scored significantly higher on the PCL-R as compared to the non-aggressive schizophrenics and controls. Compared to the non-aggressive schizophrenics, the aggressive schizophrenics were incarcerated for longer durations, and had extended family members with histories of substance abuse and criminal misconduct. Cognitively, the aggressive schizophrenics demonstrated impairments in executive functioning on several of the neuropsychological measures. In an earlier study, Adams, Meloy, and Moritz (1990) found that a sample of incarcerated schizophrenic subjects with histories in the community of severe affective violence tended to demonstrate deficits in neuropsychological functioning.

FORENSIC APPLICATIONS

Domestic Violence

More recent work on domestic violent offenders has begun to examine the feasibility of identifying homogeneous subtypes of male batterers (Holtzworth-Munroe and Stuart, 1994). Proponents of batterer typologies contend that this provides scientific understanding within which the domestic violence research can flourish with respect to amenability to treatment and prediction of violence (Goodman, Dutton and Bennett, 2000). These classification systems are strikingly similar to those posited in the aggression literature (Kockler et al., 2006; McEllistrem, 2004; Meloy, 1997; Weinschenker and Siegel, 2002).

In general, three subgroups of batterers are consistently reported in the research literature, two of which closely parallel affective or predatory violence:

impulsive-borderline and instrumental-antisocial (Hamberger and Hastings, 1986; Holtzworth-Munroe and Stuart, 1994; Langhinrichsen-Rohling, Huss, and Ramsey, 2000; Saunders, 1992; Tweed and Dutton, 1998). In a recent domestic violence study, Chase, O'Leary, and Heyman (2001) recruited 60 married partner-violent men from a local newspaper offering free therapy to couples. Participants were characterized as either reactive or proactive aggressors. Results from the Chase et al. (2001) study indicate that when proactive categorized participants were compared to the reactive group, the former were more dominant in their social interactions; they exhibited more antisocial and aggressive-sadistic tendencies; they were less dependent; and they were more frequently classified as psychopathic (17%).

Saunders (1992) performed a cluster analysis on 165 participants and found three distinct batterer typologies: family-only, generalized, and emotionally volatile. Tweed and Dutton (1998) recruited seventy-nine physically abusive men and 44 controls. Cluster analysis of the Millon Clinical Multiaxial Inventory-II (MCMI-II) revealed two separate factors which they labeled "Instrumental" (Type 1) and "Impulsive" (Type 2). The authors concluded that the instrumental batterers demonstrated antisocial and narcissistic traits and were more likely to engage in severe physical aggression. This is in stark contrast to the impulsive batterers who showed a mixed profile consisting of passive-aggressive, avoidant and borderline pathology. These domestic violence typologies are commensurate with the prevailing theory of a bimodal classification of aggression.

Psychopathy

Current research has also found that criminally violent behavior illustrates the distinction between predatory (premeditated) and affective (impulsive) violence (Porter, Woodworth, Earle, Drugge, and Boer, 2003; Raine et al., 1998; Woodworth and Porter, 2002). Cornell et al. (1996) studied a group of psychopaths and non-psychopaths, and found the former group to have higher levels of instrumental (predatory) aggression. The psychopathic offenders were more organized in their criminal activities: there was a clearly demonstrable long-term objective. These findings are consistent with the Hare and McPherson (1984) and Woodworth and Porter (2002) studies on psychopathic behavior. Conversely, the reactive (affective) offender responds to provocation with little planning or forethought--ultimately blaming the victim for the violent behavior (Cornell et al., 1996). Meloy (1988) hypothesized that the psychopath was particularly suited for predatory aggression due to his autonomic hyporeactivity, low levels of anxiety,

and lack of attachment to human objects, a theoretical assertion that has empirically been supported by other researchers.

Woodworth and Porter (2002) compared instrumental and impulsive homicides in offenders classified as psychopathic and nonpsychopathic. Results from their study indicated that psychopathic offenders were more likely to commit instrumental (predatory) crimes when compared to nonpsychopaths. In the following year, Porter and colleagues (2003) reported that individuals who commit sexual homicide are more likely to be categorized as psychopathic, kill stranger females, and participate in gratuitous and sadistic violence. An alarming percentage of psychopaths (82.4%) displayed some level of sadistic behavior compared to slightly over half of the nonpsychopaths (52.6%), validating with other research that has shown that sadism is a strong component of psychopathy (Holt, Meloy, and Strack, 1999).

Psychopathology

There is also a growing body of literature addressing violence in psychiatric populations (Adams et al., 1990; Rasmussen and Levander, 1996; Rice, Harris, Lang, and Bell, 1990; Sreenivasan et al., 1997; Torrey, 1994), but a paucity of research examining the types of aggression they might display. Gacono, Meloy, Speth, and Roske (1997) examined 18 patients who had escaped from a maximum security forensic hospital—a premeditated, planned, and tactically successful behavior—and compared them to a random, matched sample of 18 patients who had no escape history. Data analysis revealed that the escapees were significantly more likely to be psychopaths (measured by the Psychopathy Checklist-Revised), carry a diagnosis of malingering, and have no psychotic diagnosis.

Stanford and colleagues (2003a) recruited male individuals ($N = 93$) from an outpatient psychiatric clinic who were referred for anger management issues. As part of the clinical assessment, the authors employed empirically validated instruments including the Barratt Impulsiveness Scale (BIS-11), Eysenck Personality Questionnaire (EPQ), Buss-Perry Aggression Questionnaire (BPAQ), State-Trait Anger Expression Inventory (STAXI), Lifetime History of Aggression (LHA), Impulsive/Premeditated Aggression Scale (IPAS), and Aggression Interview. Principal components analysis of the 30-item IPAS revealed two distinct constructs, namely, premeditated and impulsive. Correlations were also observed between the IPAS and measures of neuroticism, physical aggression, impulsivity, and anger, furthering our understanding of aggressive subtypes.

The ability to characterize aggression in forensic populations has been established as well (Kockler et al., 2006). Kockler and colleagues analyzed data from eighty-five inpatient forensic participants (Not Guilty by Reason of Insanity and Incompetent to Proceed). Consistent with the Stanford et al. (2003a) study, the authors reported two separate constructs (premeditated and impulsive), which accounted for 33% of the variance, further supporting the utility of the IPAS.

In a follow-up study, Mathias et al. (in press) studied a sample of 66 aggressive conduct disordered adolescents (24 females and 42 males) in order to determine the usefulness of the IPAS in a population known for their behavioral disruptions. In addition to the IPAS, participants completed several other self-report measures (Barratt Impulsiveness Scale-11 [BIS-11]; Buss-Perry Aggression Questionnaire [BPAQ]; Achenbach System of Empirically Based Assessment – Youth Self-Report [YSR]; and Eysenck Personality Questionnaire – Junior [EPQ-JJ]). The authors performed a varimax rotation, which revealed two independent factors (impulsive and premeditated aggression) accounting for 34% of the variance. After comparing the impulsive aggressor to the premeditated aggressor, Mathias and colleagues opined that the former group displayed a broader range of impairments, including thought, social problems, personality, and modulation of affect, whereas the latter group showed an increased propensity for anger, as well as physical and verbal aggression. These findings indicate that the predatory (premeditated) aggressor may be at a higher risk for developing antisocial personality disorder (ASPD) (Stanford et al., 2003b) or be constitutionally more psychopathic (Meloy, 1988).

Psycholegal Issues

The legal questions that provide a context for identifying the type of aggression displayed by criminal defendants are several. The criminal process is directly influenced by decisions concerning: (1) competency to stand trial; (2) the insanity defense; (3) the formation of a guilty mind (*mens rea*); and (4) sentencing.

In *Dusky v. United States* (1960), the United States Supreme Court provided a working definition of competency to stand trial that has since become the precedent in U.S. law. While there are subtle differences in the conceptualization of competency, all states use some variant of the *Dusky* standard to operationally define the concept of competency. In *Dusky*, the U.S. Supreme Court opined, “the test must be whether he [the defendant] has sufficient present ability to consult with his attorney with a reasonable degree of rational understanding and a rational

as well as a factual understanding of proceedings against him” (p. 402). As noted earlier, the scientific research shows strong evidence supporting underlying neurobiological impairments in the impulsively (affective) aggressive individual. The research also supports the notion that the impulsive aggressor is usually amenable to psychopharmacological treatment (Houston, Stanford, Villemarette-Pittman, Conklin, and Helfritz, 2003). Taken as a whole, these findings suggest that incompetency is more likely in the impulsive (affective) aggressor, while his restoration to competency is also more likely than the predatory aggressor, although research will need to test this hypothesis. Such an association does not preclude, however, the presence of psychotic symptoms in the predatory aggressor that may be so severe that the cognitive elements necessary for competency to stand trial are grossly impaired; although the likelihood of malingering such impairments is probably greater due to the comorbidity of predatory aggression and severe character pathology (psychopathy) (Woodworth and Porter, 2002).

Second, the issue of mental status at the time of the offense warrants consideration. If we apply the primary and secondary aggression concepts as articulated by Houston and colleagues (2003) to the insanity defense, we find them helpful in understanding the behavior of the individual. They theorized that primary aggression occurs in the absence of a diagnosable Axis I disorder, whereas secondary aggression is a direct result of a diagnosable Axis I psychiatric disorder or the direct physiological effects of a substance or general medical condition. Having an Axis I psychiatric disorder (as described in secondary aggression) does not in and of itself imply insanity; however, it does open up the possibility of such a cognitive impairment, and therefore a legal defense. Predatory violence, on the other hand, requires forethought and organization to achieve a desired goal. This is in stark contrast to the affective aggressor who may misinterpret environmental stimuli as a threat, and react suddenly and emotionally with violence (Meloy, 2000). Although sanity at the time of the crime usually turns on the traditional McNaghten elements of an understanding of the offense’s nature and quality, or an understanding of wrongfulness, these two different modes of violence can influence the trier of fact as they apply the two disjunctive prongs of legal insanity to the criminal case at hand. A high degree of emotionality may impair one or both cognitive prongs of the insanity defense when the mode of violence is affective; while the second element of the insanity defense, a wrongfulness impairment, is only a remote possibility during acts of predatory violence, and would likely depend on clear evidence of a psychotic state—despite the planning and purposefulness—to obliterate knowledge of wrongfulness. A defendant’s reach for insanity in the face of predatory violence is usually an indication of legal desperation. Novel insanity defenses have included

attempts to convince the trier of fact that psychopathic individuals do not have a conscience, and therefore cannot know the difference between right and wrong. Unfortunately, such defenses fail in the face of evidence that the offender fled the crime or attempted to conceal evidence: strong inferences that he did know the difference between right and wrong, at least legally, but did not care. Dr. Stephen Hart has termed this the "Jimmy Crack Corn" defense (personal communication, May, 1998). Moral wrongfulness is typically evident when a defendant displays any internal conflict about what he is doing before, during, or after the violent crime. This conflict may be observed emotionally, or inferred from words of the defendant, and may imply the internal presence of a superego or conscience.

Third, violent acts which require specific intent, or guilty knowledge (*mens rea*) are more easily proven in cases of predatory rather than affective violence due to the cognitive and conative (thinking and fantasy-based) aspects of the former mode of violence (Barratt and Felthous, 2003). Arguments can often be made that affectively violent acts require such intense emotion that specific intent cannot be formed, and general intent crimes, such as simple assault, are the most reasonable criminal charges. The importance of making the distinction between predatory and affective aggressive behaviors is aptly articulated by Geen (1990) in the following excerpt:

[W]e discriminate among such behaviors as "angry aggression," "instrumental aggression," and "learned," "imitative," or "biogenic" aggression because these behaviors differ from each other in important ways with respect to what motivates them. However, in the interests of economy we should always strive to reduce the number of "types" of aggression to as few as possible, provided that some useful integrative model can be created. (p. 4)

The terms affective and predatory violence are typically foreign to the trier of fact, but we have found that the science behind them is often welcomed due to their commonsense definitions, and the degree to which they intellectually clarify something that most jurors instinctively know. We have also observed that most prosecutors will be inclined to define every act of criminal violence as predatory, and most defense attorneys will be inclined to define every act of criminal violence as affective. Criminal defendants during forensic evaluations will often try to convince the examiner that their acts of violence were affective, since they easily recognize that such acts offer more leeway for mitigation at trial. The forensic examiner's role in all such cases is to discern the truth.

The fourth topic related to criminal litigation is the issue of sentencing as it pertains to predatory and affective violence. According to the empirical literature,

predatory aggressors are more likely to be psychopathic (Cornell et al., 1996; Porter et al., 2003; Woodworth and Porter, 2002) and treatment resistant (Houston and Stanford, 2003). Psychopathic individuals are also at a substantially higher risk for violently re-offending (Hemphill, Hare, and Wong, 1998). Indeed, the current research strongly suggests that affective offenders have mild to moderate prefrontal deficits (Greve, Love, Sherwin, Stanford, Mathias, and Houston, 2002; Stanford et al., 1997; Villemarette-Pittman et al., 2003), yet are amenable to treatment (Barratt et al., 1997). Predatory offenders, however, do not show deficiencies in prefrontal function, although there is a burgeoning research on functional anomalies in the neurobiology of psychopaths (Patrick, 2006). Variations in the motivations for violent behavior are legion, moreover, and often influence the sentencing judgment of the trier of fact. As Melton, Petrila, Poythress, and Slobogin (1997) wrote,

All would agree, for example, that the unjustified killing of another is reprehensible. But we would all probably agree that the driver who accidentally runs into a child, the husband who in a rage kills the man he finds sleeping with his wife, and the "cold-blooded" murderer should not be punished equally (p. 203).

We concur with Melton and colleagues (1997), and believe that an analysis of the mode of violence in any particular case by an expert is relevant and helpful to the trier of fact in making sentencing decisions. There are currently research efforts concerning both observational and self-report instruments to bring both scientific reliability and validity to this task (see Meloy, 2006, for a review).

CONCLUSIONS

The research community has made significant efforts to improve our understanding of aggressive subtypes, particularly during the past decade. In this chapter we have briefly reviewed the history of the constructs of affective and predatory aggression in both the animal and human research literature, the empirical basis for this distinction, the forensic application of these constructs and its genesis in both the domestic violence and psychopathy research, and the legal implications of this distinction, practically focusing on issues of competency to stand trial, insanity defenses, *mens rea*, and sentencing. Although this chapter is necessarily a brief overview of the current science of these constructs and their application to psycholegal issues within the criminal law, we hope the reader has

been persuaded that research concerning affective and predatory violence—and instruments to measure them—deserve continued and rigorous scientific investigation.

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